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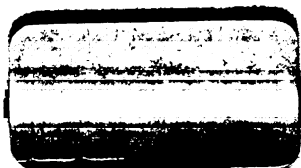
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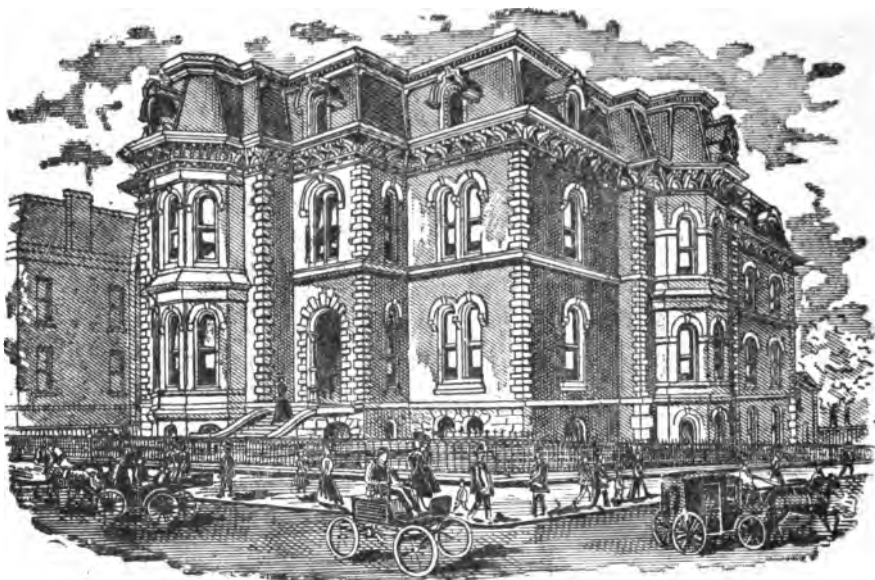
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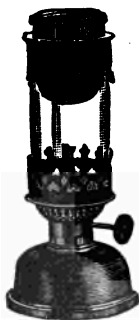
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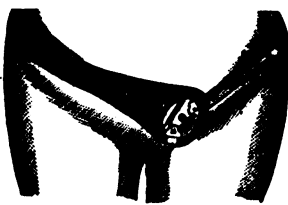
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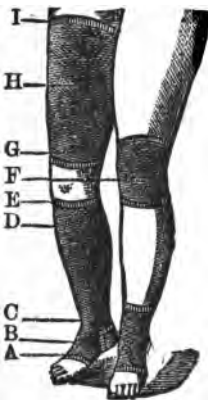


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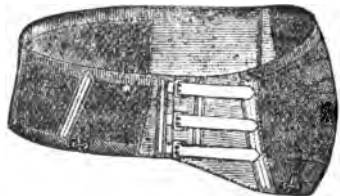
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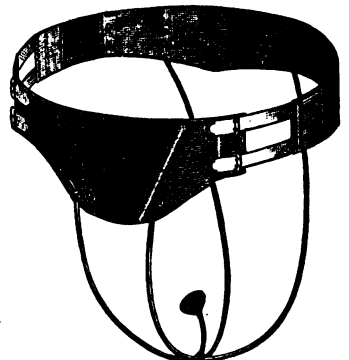
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Vol. XXIV.

NASHVILLE, MARCH. 1902.

No. 3.

Original Communications.

ETIOLOGY OF MALARIAL FEVER.*

BY D. B. BLAKE, M.D., OF NASHVILLE, TENN.

Periodic fever, under many aliases, has existed through the ages. Lancisi gave it the name of "Malaria" from the Italian, Mala, bad and Aria, air, thus tersely epitomizing its etiology as then and for generations before and since understood and accepted.

Without going into detailed account of the air and water-borne theory of the transmission of the disease to human beings, a subject with which, we presume, all here present are fully conversant, we will simply say: Prior to 1880 the accepted theory

*Read at Regular Meeting of Nashville Academy of Medicine, Jan. 28, 1902.

of the cause of malarial fever was a miasm generated in wet or marshy lands, and conveyed to man through the agency of the air, water, certain fruits or succulent vegetables. To generate this miasm it was recognized that four things were essential, viz: earth, air, heat and moisture. Observant practitioners have from time to time suggested the existence of a specific germ, and various efforts were put forth to discover such an agent. In 1879 Klebs and Tomassi-Crudelli claimed the discovery of this germ isolated from miasmatic air. The next year, Laveran, a surgeon in the French army, announced the discovery of a plasmodium in the blood from a patient suffering from malarial fever. Little impression, however, was made upon the medical world by his announcement until several years later when Celli and Marchiafava confirmed the discovery of Laveran. Since that time numerous earnest investigators have been at work developing this field and much has been accomplished in bringing to light facts of value, and in reducing some to a practical basis for service. It has been conclusively shown that this germ is the specific cause of the disease under consideration. But, Mr. President, the thing in which we are just now most concerned is: How does the beast gain entrance to the blood current? Nott, our fellow-countryman, in 1849, had advanced the idea that both malarial and yellow fevers were communicated by the bites of mosquitoes. Dr. Carlos Finley, of Havana, Cuba, about 1881 or 1882 reached the conclusion that yellow fever was certainly produced by the bites of a particular species of mosquito, the *stegomyia*. And, as bearing upon this same line, we recall that quite as far back as then an old German veterinarian in DeWitt County, Texas, persistently claimed that "Texas fever" in cattle was caused from the bites of ticks. He pressed his idea upon the authorities at Washington and we know not if this gave the clue to Smith and Kilborne, but certain it is that by their investigations it has been demonstrated that the claim of the old German was correct. Manson, an English parasitologist, found that mosquitoes which had sucked blood containing filaria and subsequently died, contaminated the water on which they died and decomposed so as to produce filariasis in those who drank the water. Reasoning by analogy he conceived the idea that malarial fever was propagated in a similar way. This conclusion was,

however, in part erroneous, and it remained for Ross, an English surgeon in the India service, and certain Italian scientists to develop the part played by the mosquito in the cyclic life of this parasitic germ. The arena has not yet been made clear as noon-day, but it may be profitable as well as interesting to note some facts which are now well established but which, till recently, were unknown, some unsuspected.

1. Not all species of mosquitoes infect man. For instance; the culicidae, while infecting birds, are harmless, though annoying to man; the higher honor of acting as carrier of the infecting organism to the genus homo being reserved to the anopheles, of which there are some four or more varieties. Parenthetically: It may be interesting, just here, to note some of the observable differences which obtain between the anopheles and the more common culex. The anopheles prefer clear, almost still and deep water in which to deposit the eggs, such water as is favorable to the growth of so-called palustral vegetation, thus securing for the larvæ the best pabulum vitæ. The larvæ and nymphæ in rising to the surface of the water to breathe, lie in a horizontal position while those of the culex are heads down tails up. The palpi are as long as the proboscis, while in the female culex, (which is the blood-sucker) the palpi are much shorter. It flies only late in the evening, in the night or early morning, makes no musical, cozening song; alights to bite noiselessly and is often unperceived either by the sense of hearing or feeling; on a wall it rests at a right angle rather than parallel thereto and does not crawl or shift its position. Yet other differences exist but this must suffice for this paper.

2. This germ has a double or two-fold life cycle: in the mosquito, the definitive host, in which is fulfilled the complete or full sexual cycle; in man, the temporary host, is accomplished the asexual cycle. (You will readily call to mind that a like condition obtains in other parasites, the *teniæ echinococcus* for example). Nevertheless the organism may and does reproduce itself in man by process of "multiplication by fission with formation of gymnosporos or *amœbulæ*." *Celli*.

3. It seems, furthermore, that these *hæmisporidia* may be stored up, so to speak, in some of the organs of the body and often, after longer or shorter periods, from some exciting cause,

as sudden exposure to cold, wet, etc., may be called into activity and produce all the phenomena of an attack of malarial fever out of season.

4. Microscopically, a distinctive germ has been made out for the quartan, another for the tertian, and yet another for the æstivo-autumnal types of fever; whereby it has now become possible easily to differentiate in some obscure cases of continued fevers, and so, speedily and correctly administer proper treatment.

5. Celli points out that to destroy the parasitic forms which are responsible for the æstivo-autumnal type of fever, efficient anti-malarial treatment must be had in the first few days, otherwise the spores of this type become stored up, most probably in the bone marrow, and are impregnable against quinine. This comports well with what is so commonly seen in practice.

6. It has been shown by actual experimentation that individuals may live for weeks, sleeping and working, in the most noted hot-beds of malaria, and, if protected from the bites of the specific insects, not contract the malady. This has been demonstrated in not one test only, but in several. Per contra: healthy persons living in healthy surroundings have had the disease communicated to them by the bites of specially prepared mosquitoes.

7. It seems that we must part company with the pronouncement of Hypocrates: "To drink stagnant water causes a hard belly, enlarged spleen and water under the skin," which idea, in substance, has been generally held by the populace. Our assumption is based upon the fact that according to exhaustive experiments of Celli and others, using stagnant water, and in large quantities from most malarious swamps and at the acme of the malarial season will not produce the affection. In the experiments referred to, the water was introduced by ingestion, inhalation and entero-clysm and to the extent of two to three litres per day. In no instance was the malarial condition induced. On the other hand, persons living and working in malarious regions have been supplied with good, wholesome food and pure water, and yet have contracted fever when not protected from the bites of malarial mosquitoes.

It has been remarked above that this variety of the insect is not inclined to fly high nor far in the day time. Long before

this was observed laborers had learned to protect themselves, in a measure, by quitting the lowlands early in the evening and passing the night on a near-by cliff, mountain side or even the upper story of a tall building; that shepherds returning from the mountains with their sheep to the Roman Campagna in the fall and finding their huts infested with mosquitoes would first smoke out the pests before occupying them as sleeping quarters; that not only in civilized lands but in "Darkest Africa" the saying prevails: "In such and such a place is fever because there are many mosquitoes there." And we believe that where malaria is rife there too the mosquito flourisheth. The statement that such is not the case in a certain district in Africa, if verified, will but prove an exception to the rule. However, let it be remembered that malaria is not found in every place where there are mosquitoes.

8. From ingenious experiments which have been made, it would appear that the specific infective agent is not transmitted from the adult insect through the larvæ and nymphæ to the daughter mosquito, but must be gotten from blood already infected. To such belief, however, we are not prepared as yet to yield assent; basing our reservation on what occurs in the case of the "tick" in "bovine-malaria." If, however, it can be established that this is true, then is very greatly simplified the matter of dealing with malarial sanitation.

Many other facts, both interesting and instructive might be cited, but our paper is already reaching the limit and we desire, though but briefly, to draw a few deductions.

1. Earth, air, water and heat are necessary for the generation of malarial miasm, so called; equally so for production of mosquitoes.

2. Malaria is most certainly contracted in the late evening, night, or early morning, just when anopheles is abroad foraging.

3. These fevers abate and in some sections entirely disappear with the coming of cold weather; even so with the pestiferous insect.

4. The several varieties of fever can be transmitted from patient to patient by inoculation—even by puncture of hypodermic stained with infected blood; why not by the sting of the mosquito?

5. The spores of the tertian requiring forty-eight hours to pass through the asexual cycle, and of the quartan seventy-two hours, explains the periodicity of these affections as no other theory has.

6. Many, if not all varieties of animal life, from the leaping batrachian to the lowing kine, the singing bird, the yelping cur the grinning ape, and on up to rushing, bustling man, are affected with this all pervasive disorder, and research has shown the ever present endo-globular parasite as the cause thereof.

7. The building up of cities together with modern improved sanitation and the drainage of lands by civilization or drought, causes a decrease in the prevalence of these fevers; ditto the insects:

8. A case of malaria occurring in a family and the anopheles being present, such case becomes, in a sense, a focus of infection.

9. We should ever bear in mind that observation had under stress of strong and abiding faith in the old theories would, in a great measure, be influenced thereby; that is, we are prone to see a thing as we expect or believe it to be. Many reputed facts if now seen under present day knowledge would, doubtless, be easily susceptible of explanation under the new theory. Certain it is, to our mind, that the mosquito-borne theory more fully and perfectly meets all demands of a critic than does any other.

As not malapropos we call your attention to a recent article by Dr. Gorgas, of the United States Marine Service, on the subject of the agency of the mosquito in the transmission of yellow fever. Dr. Gorgas, as chief sanitary officer of Havana, Cuba, and a member of the official board appointed to see and verify all cases of yellow fever occurring in Havana, had such opportunity of studying this matter as can fall to the lot of but few. Entering upon this work a disbeliever in the theory he now says: "The sanitary work done in Havana in the last year is, I think, a very strong argument, at any rate as far as Havana is concerned, that here the *stegomyia* mosquito is the only carrier of yellow fever, and that here all cases of yellow fever are transmitted by the *stegomyia*, and in no other way." After giving something of a description of the method adopted for combatting the infecting agent—how he finally gave up the troublesome and expensive

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system of fumigation, etc., he relates how an epidemic broke out in the town of Santiago de Los Vegas—some twenty cases occurring—how the whole infected area was gone over—the mosquitoes killed, and states that after the work was finished no more cases occurred.

Speaking of the work in the city of Havana, he goes on to say: "By September we had gotten rid of the last focus, and since September we have not had a single case." That in the months of October and November, months in which the disease was always exceedingly rife in Havana, there had been neither a death nor a case from this cause. That the conditions have been as good this year as they have ever been for the spread of yellow fever, and that probably we have had more non-immunes than we have ever had before—somewhere in the neighborhood of 40,000. That the only difference between this year and the other two years of American occupation is to be found in the work against the mosquito.

Under the circumstances the death rate has fallen from 90 in 1898 to 33.6 in 1899, to 24.4 in 1900, and about 21 in 1901. For the month of September it was below 16.

TREATMENT OF PNEUMONIA.

BY M. BESHOR, M.D., OF TRINIDAD, COLO.

I want to say a few words with regard to the contribution of Dr. Cummings, of Hearne, Tex., reproduced in your January number from the *Texas Medical Journal*.

In forty-eight years of active practice I early learned to regard pneumonia as a specific disease for which I believed specific treatment would be discovered in the comparatively near future, and regarded it as one of the greatest stigmas upon scientific medicine that practically no progress had been made in that direction.

In the Rocky Mountain country where I have been located the past thirty-five years, the mortality from pneumonia has been much greater than in low altitudes, but for some years past I have lost no pneumonia patients whom I could control and I

have treated all of them anti-microbically, using collaterally strychnia and anodynes, especially Dover's powder as seemingly required.

My antimicrobic has been Hydrogen Peroxide, generally Mallinkrodt's, in routine method, one ounce to two ounces of water, intending the solution to contain five volumes of the peroxide. I gave every five minutes one teaspoonful the first three doses, then every ten minutes, three doses; then every fifteen minutes three doses; then every twenty minutes three doses. After that every half hour, during sleeping as well as waking time, confidently expecting convalescence to ensue in 18 to 48 hours.

It may be said that the peroxide will expend itself in the secretions of the stomach. No doubt it will so long as there is morbid material to be oxidized; but when oxidation is completed what becomes of the peroxide introduced after that? Is it not probably absorbed and taken into the circulation? May not much of it expend itself in oxidation of the venous blood and some of it be carried the round of the circulation acting as a bactericide wherever it may encounter pathogenic micro-organisms?

From the fact that the mortality from pneumonia has remained about the same from time immemorial to the present under the various prevailing methods of treatment and under the Hydrogen Peroxide treatment the percentage of fatality has been less than 1 per cent. I am convinced that there is something in the anti-pneumococcus treatment which should engage our earnest consideration, and am inclined to the thought that the creosote treatment is an advance stride towards the materialization of a positive and practically sure method of curing the disease, but from developments to the present, I believe peroxide may be safely used where creosote would not be tolerated, with equal if not better results.

The only complaint we hear from the free use of peroxide is a sense of fulness of the stomach, patients frequently declaring that their stomachs are so full that there is room for no more, but a little persuasive encouragement (like that of the conductor of a full public coach, that there is still room for one more) will ensure a continuance of the taking till the desired end is attained.

Clinical Reports.

SOME OBSTINATE BLADDER CASES.

BY GEORGE W. HOPKINS, M.D., CLEVELAND, OHIO.

John C., æt. 31, occupation, patrolman. Following exposure, patient experienced bladder symptoms as follows:

Frequent urination, tenesmus, hypogastric pain and a temperature of 101.4 degrees. The urine was scanty, turbid and loaded with mucus. Diagnosis: acute Cystitis. Treatment consisted of rest in bed, restricted diet, anodynes for the tenesmus, diluent and alkaline drinks. The acute symptoms promptly subsided, but the urine continued abnormal despite the general measures employed and the internal administration of urinary antiseptics. Irrigations with boric acid solutions of varying strength proved unsatisfactory, as did also solutions of potassium permanganate and silver nitrate similarly applied. A 20 per cent. solution of Glyco-Thymoline was then substituted for irrigation, and the improvement was marked and continuous until recovery was perfect.

Harry R., æt. 43, occupation, bookkeeper. Had a history of bladder troubles of several years' duration. His urine was blood tinged and loaded with mucus. Microscopic examination revealed an abundance of ammonia, magnesium phosphates, numerous disintegrating pus corpuscles, blood corpuscles and blood shadows. Repeated examination with the sound gave negative results, but a skiagraph taken with a high vacuum hard tube, revealed a small calculus which had persistently evaded the sound in previous examinations. Lithotomy was performed and the calculus removed, but the urine failed to return to normal. Irrigation in turn with boric acid, potassium permanganate and silver nitrate solutions proved unsatisfactory. Glyco-Thymoline irrigations proved satisfactory from the start and recovery was ultimately perfect.

William L., æt. 55, occupation, saloon keeper. Had a history of repeated attacks of gonorrhœa which were never appropriately treated. Urine was voided with great difficulty, at frequent intervals and loaded with mucus. Reaction was alkaline and the microscope revealed an abundance of amorphous phosphates of calcium and magnesium, flat epithelial cells, disintegrating pus corpuscles and indigo crystals. Examination confirmed diagnosis of chronic cystitis due to urethral stricture and hypertrophied prostate. Catelectrolysis by the slow method removed the stricture and Bottini's operation relieved the enlarged prostate, but the urine failed to clear up as desired. The cystoscope showed marked changes in the bladder walls, but catheterization of the ureters yielded negative results. Appropriate urinary antiseptics were administered internally and silver nitrate solutions by vesical irrigation with only slight improvement. Irrigation with 20 per cent. solution of Glyco-Thymoline gave early and continuous improvement until recovery was perfect.

Selections.

NOTES ON THE TREATMENT OF COUGH.—Under the above title Henry Herman, M.D., of New York, has a very excellent article in the *Denver Medical Times*, from which we quote:

“Most practitioners will readily agree that the old remedies, which we have had at our disposal for the alleviation of cough, are not everything that can be desired. The old time-tried narcotics and expectorants often fail us when most needed, and it is especially in chronic cases, in which cough constitutes the chief discomfort of the patient, that they fail most frequently. In paroxysmal coughs, especially in whooping cough, there has always been a difficulty in soothing the irritable mucosa of the bronchi and in reducing the number of attacks, so as to avoid the weakening effects of the paroxysms without at the same time drugging the patient with narcotics until the danger line depression has been reached.

Notwithstanding the evident need for better respiratory seda-

tives, the chemists have given us a large number of remedies for the reduction of fever, and an innumerable number of substances vaunted as antiseptics, but have paid little or no attention to the preparation of new therapeutic agents designed to alleviate cough. Eager anticipation, therefore, greeted the discovery of the clinical value of heroin, the diacetic acid ester of morphine, by Dreser and Floret, in 1898.

Heroin has now been tested in so large a number of cases, reported by so great a number of trustworthy observers, that its status may be accepted as securely established. The sum of clinical and pharmacological experience designates heroin as a respiratory sedative superior in every respect to the older narcotics, and withal devoid of toxic or depressant properties. Its physiological action consists in a diminution of the frequency of respiratory movements, and at the same time in an increase of the volume of the individual respiratory act. The reduction of the tussal reflexes is combined with the relief of pain without the danger of a drug habit, which exists when other opiates are prescribed.

As regards after-effects, we may, I think, accept the conclusion of Manges (*New York Medical Journal*, January 13 and 20, 1900), based upon a review of the work of numerous writers on the subject, that heroin is not followed by serious effects of an untoward character unless it be administered in excessive doses. My own observations, in a large number of cases, confirm this view. The only collateral effect that I noted in the use of heroin was a tendency to constipation, which is especially prominent in old persons, but is in all cases easily combated with mild laxatives. I have not observed vertigo, nor vomiting, after the administration of doses proportionate to age. There is no doubt, however, that, after all, heroin is a derivative of morphine, and therefore it is to be used with that caution and judgment, which drugs of this class demand. Fortunately its very efficiency precludes the necessity of administering doses of any magnitude beyond the usual.

Next to the respiratory sedatives, the expectorants are the most essential factors in the treatment of cough. The members of the ammonium group for a long time have enjoyed well-merited preference as stimulating expectorants on the part of

physicians. I wish, however, to call attention to one member of the ammonium family that has been most inexcusably neglected—ammonium hypophosphite. Its action is similar to that of ammonium chloride, but it has the advantage of being easily borne by the stomach, and of being more agreeable in taste. I was surprised to find that such a complete work as the National Dispensatory does not mention it, and it has not been received into the Pharmacopœia of this country nor into those of Germany, Great Britain and France. The dose is from ten to thirty grains, and the salt occurs as a white laminous crystalline powder, soluble in water, having the chemical formula of $\text{NH}_4\text{PH}_2\text{O}_2$ plus H_2O .

There can be no question as to the increased value of a combination of remedies which embodies so efficient a respiratory sedative as heroin and so trustworthy an expectorant as ammonium hypophosphite, and therefore I determined to try the preparation known as glyco-heroin in the treatment of coughs, with special reference to paroxysmal coughs and chronic, obstinate bronchial catarrhs. In the following very brief histories I have endeavored to give the results of my experience with this preparation which in addition to 1-16 of a grain of heroin hydrochloride to the drachm and ammonium hypophosphite, contains balsam of tolu and white pine bark."

He then proceeds to give a series of clinical reports taken from his note book; concluding as follows:

"Of the nineteen cases reported, there were ten cases of whooping cough in patients ranging from $2\frac{1}{2}$ to 38 years of age. In these the dose varied, according to age, from ten drops to a teaspoonful, the intervals not exceeding four hours. The results were very satisfactory in all cases, with the single exception of case 4, a mild type of whooping cough in a patient aged 38 years, in whom nothing but change of climate had the desired effects. In the other nine cases of pertussis, there was very prompt diminution of the number and severity of the paroxysms and an improvement in the general well-being of the patient. These effects were all the more noteworthy as they are rarely seen in pertussis on the administration of any other sedative remedy.

In three cases of subacute bronchitis, the results were so prompt as to astonish the patients themselves. With due care

the continuation of the catarrhal process into a chronic state was avoided.

In two cases of cough, occurring during pregnancy, glyco-heroin proved very efficient. Of all forms of cough, sedatives are most urgently indicated in the irritable condition of the whole system which obtains in the pregnant state. In glyco-heroin I found a palatable combination which at the same time is free from the depressant properties of the other opiates.

There were four cases of chronic bronchitis, the age of the patients ranging between 27 and 81 years. As has been noted by other writers, heroin is not so well borne by the aged as it is by the young. The dose must therefore be kept down in old people, and it is for this reason that in one of the cases, No. 17, in which the patient was 81 years old, no results could be obtained. In contrast to this case stand the other two instances of chronic bronchitis in the aged (persons aged 73 and 78 years respectively), in which the effect was all that could have been wished.

In conclusion, I will say that while there probably never will be a remedy which will act with equal efficiency in all cases, the results which I obtained with glyco-heroin in a number of difficult and obstinate cases of cough enable me to express myself as fully satisfied that it is an efficient respiratory sedative and expectorant."

MORTALITY RATE IN THE UNITED STATES.—The statistics recently published by the Census Bureau of this country with regard to the death rates are of exceptional interest, and are of a nature to give rise to hopeful views regarding the checking of the spread of disease, and perhaps even the extinction of some maladies, says the *Medical Record*.

The mortality rates given in the bulletin are those for 1890 and 1900, and the comparison between the death list of these periods shows conclusively that the efforts made by hygienists to lengthen the lives of American citizens have been attended with complete success.

The statement is made that the proportion of deaths to population has decreased within the dates mentioned by nearly 10 per cent., and that the average age at death of an American is now

38.2 years, as compared with 31.1 in 1890. This, of course, is a magnificent showing, and the only drawback to the picture is that the bettered conditions of living apply only to the larger cities. The country districts exhibit according to the bulletin no such relative improvement.

The most striking feature of the reports is the great reduction in the death rate from tuberculosis, which has fallen from 254.4 per 10,000 persons in 1890 to 190.5 per 10,000 in 1900, a gratifying proof of the efficacy of modern sanitation, and of the means now employed in fighting the disease. Diphtheria, cholera infantum, bronchitis, diarrhoea, and typhoid fever, also, for the same reasons, claim far fewer victims at the present time than in 1890, the decrease in mortality from these causes having been substantial and progressively steady.

On the other hand, pneumonia, as a factor in the death rate, occupies a more prominent position, there having been 191.9 per 10,000 deaths in 1900, and 186.9 per 10,000 in 1890. The cause of this increase in the occurrence of pneumonia has been on many occasions given in the *Record* and in other medical journals as undoubtedly due to influenza. The insidious malady has made rapid progress since 1890. In that year, the deaths directly attributed to it were, the census bulletin states, 6.2 per 10,000, while in 1900 the number was 23.9 per 10,000. The fact must also be taken into consideration that influenza peculiarly predisposes its victims to other diseases, notably to pneumonia, by rendering the system susceptible in a high degree to the ingress of disease germs.

Pneumonia as a sequel to influenza is also a most fertile cause of death, the vitality of the patient when seized being at a low ebb, and recuperative powers well-nigh used up by the drain put upon them by the former affection.

Cancer, again, has been conspicuously on the increase during the past ten years, as have kidney complaints, heart affection, and apoplexy. The activity of scientific men in different parts of the world, who are engaged in the investigation of the origin and cause of cancer, gives rise to the hope that some of its unknown features may soon be definitely solved, and that, as a consequence, its treatment may be conducted upon more intelligent preventive and curative principles.

The bulletin of the United States Census Bureau is a most satisfactory document, and the tale it tells is a feather in the cap of our city boards of health, and of our municipal reformers generally. There is yet, however, room for much improvement in the sanitary conditions of the large cities of America, particularly in the direction of wholesome dwellings for the poor.—*Scientific American*.

SURGICAL HINTS.—In the presence of a compound comminuted fracture of a limb, the question of immediate amputation is often dependent upon the probable length of the limb after the fragments shall have been removed. If the amount of shortening is to be such as shall prevent the muscles from acting properly, amputation is advisable rather than attempts, always uncertain at best, to save the limb.

For the treatment of chilblains try painting the affected parts with balsam of copaiba. It is an old remedy that seldom fails.

In pelvic abscess reaching low down in the pelvis, opening through the vagina is the proper procedure, as there is less risk of general infection, and drainage is efficient.

It is said that the pus of gonorrheal vaginitis is always alkaline. If for any reason a microscopical examination cannot be made, the use of a strip of litmus paper will, therefore, give a fairly accurate decision.

It is well to remember that in bullet wounds pain is not usually a very marked symptom. If the wound is received during a period of excitement, it may give hardly enough pain to cause the subject to know he has been wounded. If there is any pain, it is apt to last for a short time only. The absence of suffering may mislead the surgeon into a failure to recognize the gravity of the injury.

Hemorrhage from a gunshot wound is usually very slight unless a large vessel has been torn or cut across. Marked bleeding from such wounds, therefore, usually calls for enlarging the opening and searching for the injured vessel.

In children, in the differential diagnosis between fractures and dislocations, it is always well to remember that the latter are very rare in childhood because the muscular power of children

is comparatively small, because of the presence of epiphyseal cartilages, and because the soft parts about the joints are so soft. They are also uncommon in the old, because here again the muscular power is diminished and the bones are more brittle.

By far the most effective treatment for erysipelas of the face consists in the constant application of ichthyol dressing. But however limited the disease, and however well the patient appears to be doing, the surgeon must be constantly on the watch for the possible appearance of cerebral complications, whose onset may be very rapid and the termination of which is often fatal. Hence always forbear to give a good prognosis in these cases until the patient has practically recovered.—*International Journal of Surgery*.

HOT WATER INJECTIONS.—It frequently happens that an obscure country doctor, whose services, by the way, are of just as much importance as those of the city professor, makes a valuable discovery, or possibly a mistake by which the profession may profit. This time the honor falls to the country doctor, and to the Lone Star State. In preparing a case of anal fistula for operation, the doctor proceeded to wash out the tract of the fistula with what he supposed to be a warm solution. Whether the fistula was complete or incomplete, or what style of irrigating apparatus was used by the doctor, we are not prepared to state. At all events, the doctor soon discovered that his irrigating solution was so hot that he had not only cleansed the diseased parts upon which he was to operate, but that he had unintentionally cooked or scalded the entire tract of the fistula. The case was left without operation, but with a suitable dressing, and in due time the doctor made a further discovery, that the cooking process has resulted in a radical cure of the fistula. The doctor had common sense enough to profit by his supposed mistake, and since then has had the courage to go forward, using boiling hot water in the treatment of such cases, and as a result, he reports several cases of anal fistulæ as cured.

Hypodermic injection of hot water is now being tested at the New York Polyclinic, in the treatment of nevus, angioma, and cases belonging to that class. An injection of water as hot as

can be obtained coagulates the blood in the vessels of the tumor, but nether causes pain nor necrosis of tissue. The absence of pain is accounted for by the fact that air is not allowed to reach the scalded tissues, and this with the sterile condition of the water may prevent necrosis.

The technique of hot water injections is very simple. No special apparatus is required. A syringe of any size may be used from a hypodermic up, but one of about the capacity of an antitoxin syringe is preferable. The syringe should first be filled with water, and with needle adjusted ready for use is placed in a pan of water and brought to the boiling point. The field of operation is sterilized, and for the purpose of protecting the sound skin of the patient from the hot syringe, a thick pad of gauze in which an opening has been cut in the center to allow the tumor to protrude is placed over the field. If the tumor is located on the face, and especially if the patient be a child, as in in cases of nevus, chloroform or ether should be used. If on the body or limbs cocaine is the proper anesthetic, to be used only at the point in the sound skin a short distance away from the tumor, where the needle of the hot syringe is to be introduced; as the injection of hot water into the tumor proper is not painful.

The syringe having been previously filled is now drawn from the pan of boiling water by the aid of some hooked instrument, and quickly wrapped in a pad of gauze to protect the hands of the operator. Air is expelled, and the needle inserted in the sound skin at or a very short distance from the base of the tumor, the point of the needle being carried forward and upward into the mass of the tumor. At this stage great care should be used to avoid passing the point of the needle out through the surface of the tumor, for, if the skin is broken, the hot water will escape, and not only the benefit of the remedy lost, but serious hemorrhage may follow. After the syringe has been removed from the pan of boiling water, the injection should not be delayed for a second. The operator should work rapidly but with care. The vessels and tissues affected by the heat at once turn white. The operator alone must decide upon the quantity to inject at each sitting and should stop before the sac of the tumor becomes too tense. Avoid an excessive quantity. He must be governed by

the size of the tumor treated. On withdrawing the needle the point of puncture should be sealed with collodion at once. A nevus, the size of a large chestnut, should be cured by three injections, at intervals of one week, if the water used is of sufficiently high temperature.

It has been suggested that an alcohol lamp held under the barrel of the syringe by an assistant or by means of clamps to keep the water at the boiling point while being injected would add to the value of the remedy. Its practicability will soon be tested, and perhaps an asbestos mitten may be used by the operator.—*International Journal of Surgery*.

THE BACTERICIDAL POWER OF CERTAIN URINARY DISINFECTANTS.—Bacteria may gain entrance into the urinary passages either directly through continuity of structure, or indirectly through the blood-stream; and by some it is held that infection may take place, also through contiguity of structure, by way of the lymphatics. In any event, it was extremely desirable to be in possession of means for preventing such a contingency, or for combating it should it arise. It is true a number of medicaments have been recommended for this purpose, but of most of them it must be admitted that although they may exhibit marked bactericidal activity in the test-tube they cannot safely be administered in doses sufficiently large to bring about the desired results, or that they become so changed in the body when administered internally as equally to fail of their purpose. Appreciating these facts Dr. Arnold Warnier (*Centralblatt f. d. Krankheiten der Harn- und Sexual-Organen*, B., xii., No. 11, p. 593) undertook an experimental investigation for the purpose of determining the bactericidal powers of a number of drugs that have been recommended as urinary antiseptics. He administered the drugs in question to healthy individuals, and the urine passed on the succeeding night was collected in sterile vessels. This urine was then inoculated with bouillon cultures of the respective micro-organisms and put aside in the thermostat for observation and comparison with control uninoculated specimens. As a result of this study it was found that boric acid, guaiacol and creosote, when administered internally, even in large doses, exert no

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influence upon the development of bacteria in the urine. Benzoic acid in small doses (9 grains daily) likewise exhibits no such action, but when given in larger doses (from 45 to 90 grains in the day) the growth of streptococcus pyogenes is inhibited, while other bacteria are on the other hand not affected. The growth of streptococcus is not inhibited by salol, while that of staphylococcus albus and proteus is retarded distinctly, and that of bacterium coli and bacillus typhi and staphylococcus aureus is not materially affected. After the internal administration of Urotropin this substance can always be found in the urine within a short time. Likewise formaldehyde can always be found in acid urine and the reaction is the more distinct the more pronounced the acidity of the urine. The growth of bacteria is almost entirely prevented, although bacterium coli exhibits sluggish growth even in urine containing formaldehyde. At first this failure of growth depends only upon inhibition, while the bacteria retain their viability. After prolonged action of the formaldehyde, however, actual destruction of the bacteria takes place. Here again the bacterium coli is the most resistant of the organisms. Tannopin and tannoform exhibit no influence upon the development of bacteria in the urine.—*Journal of the American Medical Association*, Chicago, January 25, 1902.

COMPARATIVE VALUE OF URINARY ANTISEPTICS.—At the "Schlesische Gesellschaft für vaterländische Kultur," Breslau, November 29, 1901, Dr. R. Stern reported upon experiments on urinary antiseptics that he had made in conjunction with Drs. Reche and Sachs. The question as to whether the urine can be influenced by the administration of antiseptics is of great importance from both a prophylactic and a therapeutic point of view; most authorities answer it in the negative. Salicylic acid, chlorate of potash, copaiba, iodide of potash and many other drugs have been experimented with and generally with unsatisfactory results. Those from Urotropin, however, had been more generally favorable; for besides its property of uric acid solution it exercises a restraining influence upon bacterial development.

In Dr. Stern's experiments patients suffering from infections of the urinary organs (cystitis, etc.), were given the antiseptic

agents by the mouth; in other cases normal urine was inoculated with bacteria. The number of germs was approximately determined. For this purpose plate cultures were employed, and the urines were also kept in the culture oven for three to six hours, or more, and then examined as to the quantity of their germ contents. The results were as follows:

Urotropin in amounts of 4 grams (60 grains), given in 1 gram (15 grains) doses had a marked bactericide action; and even smaller doses were effective.

Salicylic acid in amounts of 3 to 4 grams (45 to 60 grains) did diminish the bacteria, but did not destroy them. Salol in 6 gram ($1\frac{1}{2}$ drams) daily quantities had still less action, as was also the case with methylene blue up to eight capsules per diem. Boric acid 4 grams (60 grains) had no effect at all; camphoric acid and oil of sandalwood had but very little; copaiba balsam 5 capsules of 0.5 gram ($7\frac{1}{2}$ grains) none at all; turpentine had an effect at times, but it was inconstant, and was associated with unpleasant by-effects. Chlorate of potash in 8 gram (2 drams) doses had no effect; nor had uva ursi leaves.

An important fact as regards Urotropin was proven by the experiments to the effect that it not only hindered fresh bacterial development, but killed the organisms that were present in from three to four hours. It was best administered in fairly large doses, giving 3 to 4 grams (45 to 60 grains) within a few hours. For steady use these amounts are too large; about 2 grams (30 grains) daily in four doses is better. It always takes a few hours before the antiseptic effect is gotten; and it is never very marked in processes such as tuberculosis, where the deeper layers of the mucosa are involved.

Dr. Stern does not favor the employment of Urotropin in typhoid fever; he does not think it necessary, and is of the opinion that there might be some danger of hæmaturia.

The author's conclusions are that urinary antisepsis can be effected by drugs, and best by Urotropin; less so by salicylic acid, and not at all by chlorate of potash, boric acid, uva ursi leaves, and turpentine.

In the discussion upon the paper Dr. Munchheimer stated that Urotropin had a favorable action upon the vesicular paresis of tabes. In a case of his there was always 500 to 600 grams (17

to 20 ounces) of residual urine present; all other remedies had been tried without effect, and only Urotropin reduced the residual amount to 150 grams (5 ounces). When the remedy was stopped the amount increased again to its former point.

Dr. Schmeidler said that he had had good results from Urotropin in cystitis and pyelonephritis; the foul odor disappeared, though pus was still present.

Dr. Neisser said that he employed Urotropin in fairly large doses in various dermatoses; he had not gotten any especial results, but the innocuousness of the preparation had been thoroughly demonstrated. He recommends the employment of Urotropin in all cases where catheterization has to be undertaken, to prevent the occurrence of infection.—*Deutsche Medicinische Wochenschrift*, January 2, 1902.

THE EVIL OF SUBSTITUTION.—Many suggestions relative to obviating this despicable custom among many retail druggists have appeared among the editorials of the medical press, but most of them have lacked the practicality so essential for success in a movement of this kind. Dr. J. D. Williams, of New York, in a contribution to one of our exchanges has made some very valuable suggestions among which we quote:

“There can be no subject of more importance to physicians than the violation of their confidence on the part of a dishonest dispensing druggist. Law will not make a dishonest man honest, but the right law properly executed will prevent a criminal’s further infliction of injury upon society. The requirement of a license to all druggists who dispense drugs or medicines, revokable upon the licensee’s being convicted of substituting any ingredient, drug or medicine other than, and in lieu or instead of, that specified in the prescription, order or request in writing, of any physician, would go a long way to aid in the matter of honestly filling prescriptions. Let the medical societies induce their respective State Legislatures to enact a law requiring such a license, with a simple and practical procedure for establishing the guilt and enforcing the penalty against infraction, and the practice of substitution would soon cease.

“Let proceedings for revocation of license be before the court,

board, or officer, empowered to issue the license, and be set in motion at the relation of either the Board of Health or local medical society, or the purchaser upon whom the fraud and imposition had been done, or of the physician by whom the prescription or order was issued or given, or of any person, firm or corporation for whose brand or make of drug or medicine the substitution had been perpetrated. Let the licensing board, court, or officer be empowered to issue citations, subpoenas for witnesses, to administer oaths, and be given all other requisite powers for duly trying the issues and revoking the license of the guilty. These conclusions are logical, and we congratulate the action; we think, however, that he should have made his suggestion relative to making the austere health boards the prosecuting power a little stronger. This method is our chief hope." *Gaillard's Journal.*

CREOSOTE CARBONATE—CREOSOTAL.—In a paper "The Symptomatic Treatment of Tuberculosis," by Dr. Karl von Ruck, published in *The Journal of Tuberculosis*, Asheville, N. C., January, 1902, the author, under the caption "The Treatment of Pneumonia Complicating Phthisis," says:

"Until several years ago, I had much faith in the administration of one or two full doses of quinine (10 to 15 gr.) and while I still believe its use to be valuable, I have for the present abandoned it in favor of full doses of Creosotal, which has appeared to have a decided influence in diminishing the ordinary duration and in bringing about resolution of the pneumonic process. My experience extends now to upward of twenty cases, in none of which the pneumonic area progressed to caseation as is so apt to be the case in pneumonias complicating pulmonary tuberculosis, especially if the inflammatory area is already the seat of tubercle. This may be, of course, a fortunate coincidence, and I will still consider it so were it not for the favorable results reported by various clinical writers in other forms of pneumonic inflammation."

In the same paper, under the heading "The Treatment of Hemorrhage," Dr. von Ruck again recommends Creosotal:

"Although the benefit from expectorants is not susceptible to

proof, I can say that I have seen fewer pneumonias since using them after severe hemorrhages than I did before, and if the favorable reports and my own favorable experience of the action of Creosotal (Carbonate of Creosote) or Carbonate of Guaiacol in the treatment of pneumonia is further confirmed, we may hope that their administration for the first three or four days in the cases under consideration may still further reduce the frequency of this serious sequella to hemorrhage."

THE WIDAL REACTION IN TUBERCULOUS MENINGITIS.—Edward Mackey in *The Lancet*, January 25, 1902, reports the case of a woman of 28 years in whom the diagnosis of typhoid fever had been made, mainly on the strength of a positive reaction to the Widal test. The patient died and autopsy revealed no typhoid lesions, but distinct tubercles in the brain.—*Medical Record*.

PERINEAL PROSTATECTOMY.—A median perineal cystotomy is done, and the finger introduced into the bladder to examine the prostate from its vesical aspect. An incision is next made, commencing at the posterior angle of the cystotomy incision, carried straight back along the median perineal raphe, around the anus, to terminate in front of the coccyx. The left forefinger is then introduced into the bladder, and presses the prostate into the perineal wound. The capsule is incised, and the prostate either shelled out from its capsule or removed piecemeal by cutting forceps and scissors, the method of enucleation depending upon the fibrous or adenomatous condition of the gland. A full-sized drainage tube is then passed through the cystotomy wound and secured in position.—*P. F. Fryer, in Medical Record*.

CASE OF SYMPTOMATIC EPILEPSY, CIRCUMCISION, AND COMPLETE RECOVERY.—Knox Bacon reports the case of a child of 9 years, who gave a history of good health until March, 1901, when he began to have slight seizures, affecting principally the muscles of the left side of the body, and as the disease continued

the entire muscular system was involved. In August, when first examined, he was having from eight to fourteen spasms in twenty-four hours. From the indications, circumcision was deemed advisable, and was performed September 1st. For twelve days following the seizures were as frequent as ever, but after that gradually lessened in number and severity. The child improved in weight and in general health and disposition.—*St. Paul Medical Journal.*

Editorial.

SIXTY-NINTH ANNUAL MEETING OF THE TENNESSEE STATE MEDICAL SOCIETY.

The circular letter sent out by the Secretary last month to 2,500 regular physicians in the State, should result in a large attendance at the meeting in Memphis, April 8-10 prox. However, we desire again to call the attention of our readers in this State and those residing adjacent thereto, to the importance of the meeting. Important changes in the organization of the American Medical Association last year has necessitated certain changes in most State organizations. But little is needed in ours, as it has long held to the idea of strengthening the State organization by working up the County Medical Societies! This matter has not, however, been looked after as closely and energetically as it should have been, and there are certain other measures of importance that will be brought up that should be of interest to every member of the regular medical profession.

Therefore, we earnestly urge everyone who possibly can attend to do so. That there will be a reasonable amount of good papers, we feel assured, as our practical, systematic, methodical and energetic Secretary has been actively at work.

We understand that the meeting will be held in "the Ordinary" of the Peabody Hotel, a most excellent place, as we know from former experiences. The Committee of Arrangements, with Dr. Crofford as Chairman, will be amply sustained by the regular practitioners and citizens of Memphis. And then, we may mention, in a whisper, if you please, the Spring Meeting will be on hand at Montgomery Park, and if you are not willing to risk your judgment in "picking a winner" or taking a long shot on a dark "hoss," we all know that good Doctors like to see a good horse. Possibly a little off-time may be found in our three days' stay in the Bluff City, or a day or two longer will "give some of your patients, possibly, a better chance to get well." This suggestion is by no means original with

us, it was given us earnestly some years ago by one who honored the medical profession of Memphis at one time by being one of them, but later received higher honors as a most worthy dignitary of the church.

Railroad rates, we are informed by the Secretary throughout Tennessee and Mississippi, at one and one-third. Pay full fare at railroad station from which you start, and be certain to ask for certificate, which on being signed by the Secretary will entitle you to return ticket at one-third fare. The same rates are expected to apply to Arkansas as well, but at this writing, it is not assured as is the case with Tennessee and Mississippi, although confidently expected.

THE NATHAN LEWIS HATFIELD PRIZE FOR ORIGINAL RESEARCH IN MEDICINE.

The College of Physicians of Philadelphia announces through its Committee that the sum of Five Hundred Dollars will be awarded to the author of the best essay in competition for the above prize.

SUBJECT: "The Relation between Chronic Suppurative Processes and Forms of Anaemia."

Essays must be submitted on or before March first, 1903.

Each essay must be typewritten, designated by a motto or device, and accompanied by a sealed envelope bearing the same motto or device and containing the name and address of the author. No envelope will be opened except that which accompanies the successful essay.

The Committee will return the unsuccessful essays if reclaimed by their respective writers or their agents within one year.

The Committee reserve the right not to make an award if no essay submitted is considered worthy of the prize.

The treatment of the subject must, in accordance with the conditions of the Trust, embody original observations or researches, or original deductions.

The competition shall be open to members of the medical profession and men of science in the United States.

The original of the successful essay shall become the property of the College of Physicians.

The Trustees shall have full control of the publication of the memorial essay. It shall be published in the Transactions of the College, and also when expedient as a separate issue.

Address

J. C. WILSON, M.D., Chairman,
College of Physicians,
219 South Thirteenth Street, Philadelphia, Pa.

RESOLUTIONS OF RESPECT.

The Nashville Academy of Medicine and Surgery at a called meeting in their hall at the Tulane Hotel, February 21, 1902, passed the following resolutions in regard to the death of Dr. H. H. Murrey:

WHEREAS, by a dispensation of His divine providence our Heavenly Father has seen fit to remove from our fellowship our esteemed co-worker, Dr. H. H. Murrey; and,

WHEREAS, in this dispensation of His will, severe though it may seem to us, we recognize the omnipotence of the hand that smites. "In the midst of life we are in death," and we realize our utter helplessness and dependence upon him who careth for even the sparrows as they fall; and,

WHEREAS, we deeply and sincerely deplore the untimely death of our late associate and keenly feel the loss of him whom we knew to love and respect, exemplifying in his daily life and labors the characters of the Great Physician, therefore be it

Resolved, that we extend to his bereaved family our most sincere sympathy in this hour of gloom, when it seems no ray of light can be seen, and bid them look up to Him from whom cometh all light and life. Be it further

Resolved, that a copy of these resolutions be furnished to the daily press and to the medical journals and a copy spread on the minutes of the Academy.

S. S. CROCKETT, Chairman.
JAMES B. STEPHENS,
THOMAS L. MADDIN,
M. C. MCGANNON,
DAVID R. NEIL.

A PROGRESSIVE, SUCCESSFUL AND UP-TO-DATE ESTABLISHMENT.

In the *New York Commercial* of February 12, in its news columns we find the following, which needs no comment at our hands, other than the heading which we have given it:

"The firm of Parke, Davis & Co., manufacturing pharmacists of Detroit, has adopted the policy of other large corporations of encouraging its employes to become shareholders. This company proposes to issue 4,000 shares of its capital stock, and permit the oldest among its employes, especially those in important positions as managers, superintendents and foremen, to purchase this new stock at \$55 a share. The present market value of the stock is \$70 a share, and face value, \$25 a share.

"The company announces that it is not taking this action for philanthropic reasons, but because it considers it good business judgment to have its men in important positions interested in the profits of the business.

"Parke, Davis & Co. are the largest manufacturers of pharmaceutical products in the world, and the development of business in the past few years has been something phenomenal. In addition to their home offices and laboratories at Detroit, they maintain five sales branches in this country, at New York, Chicago, Baltimore, New Orleans and Kansas City. They also have extensive manufacturing plants in Walkerville,

Ont., and in London, England, with a supplementary foreign plant at Simla, India.

"The tangible assets of the company inventory, \$3,400,000, against a capital stock of \$1,500,000, and a surplus account of \$1,900,000. Among the recent developments in the business is the new scientific laboratory, which has recently been constructed and equipped at an expense of some \$115,000, and which will be ready for occupancy by July 1, next. This building will be devoted exclusively to the experimental and investigating work of its scientific staff.

"The company has recently purchased and is now absolute owner of the Hubel empty capsule plant, and is operating this as well as the United States capsule plant. Some idea of the magnitude of the empty capsule business can be obtained when it is known that in these two capsule plants there are employed some 260 operatives. In the Detroit laboratories and offices, the company employs some 1,700 people; in the Canada branch, some 20, and on the road there are now 239 salaried representatives.

"This is one of the institutions of which Detroit is very proud. From a small beginning in the early 70s the business has developed into world-wide proportions."

SMALL-POX THERAPY.—"The prevalence of a mild type of small-pox throughout the country gives the therapy of that disease especial interest at the present time. Vaccination is, of course, unquestionably not to be overlooked as a preventive measure, but in addition infection may be made much more unlikely and, where infection has taken place, the course of the disease considerably shortened and shorn of its terrors by the administration of the valuable anti-purulent ecthol. The Battle Company has just issued a pamphlet dealing with the use of ecthol in this disease. The pamphlet should be in the hands of every physician who may be called upon to treat small-pox. It will be sent to any physician who makes the request."—*Medical Fortnightly*.

We have not had an opportunity of trying Ecthol in variola, but from its most excellent results in all cases attended with the formation of pus or suppuration in any form in which we have tried it, we feel certain that it will be most valuable in the therapy of this justly dreaded and loathsome and unpleasant disease.—ED. S. P.

FIROLYPTOL.—It is our custom to mention through these columns from time to time new preparations that are offered the profession by reliable manufacturers if they are known to possess real merit. A preparation that is just now attracting much favorable comment from the profession is the new antiseptic emulsion, Firolyptol with Eucalyptol and Kreosote, prepared by The Tilden Company, Manufacturing Pharmacists, New Lebanon, N. Y.

THE DEATH RATE FROM PNEUMONIA for the decade ending with 1900 is shown by the United States Census Bulletin of 1900 to have been greater than from any other one cause, and 5 per cent. greater for the decade referred to than from the previous ten years. With such a large and increasing death rate every physician owes it to himself and to his patients to test Antiphlogistine which has a well-earned reputation for being the best possible local treatment for this and other inflammatory diseases. Many physicians report that a single dressing applied early, covering the entire thoracic walls and covered with a cotton jacket will often absorb the disease.

SCIATIC PAIN—PROMPT RELIEF.—In reporting his experience in the treatment of sciatica, Fred E. Davis, M.D., of Brookside, Ala., writes as follows in *Annals of Gynecology*: "I have been giving antikamnia and heroin tablets a thorough trial in the treatment of sciatica and I must say that my success has been phenomenal indeed. I have also induced two other physicians to give them a trial and their success equals or surpasses my own. I meet with many cases of sciatica and until antikamnia and heroin tablets were introduced I was compelled to use a great deal of opium and morphine to relieve the pain. Since then, though, I have not given either. One of my patients had been confined to bed for three weeks during her last attack of sciatica. I prescribed one antikamnia and heroin tablet every four hours and in forty-eight hours she was up and about and has not felt the pain since. I thank you for the introduction of this most excellent remedy and assure you of my willingness to report the results of still further investigation."

THE SALICYLATES.—Many of our readers are doubtless familiar with the high class and quality of the products of the Merrell Laboratories. They make no inferior preparations of any description whatever and have no secret formulae, but conduct their business strictly within ethical limits. We therefore feel warranted in appealing to you for your preference and support, and desire at this time to direct special attention to their True Salicylic Acid from Natural Oil of Wintergreen and its derivatives, of which they are the largest manufacturers in the United States. Their experience with the article has revealed the fact that not one pound in a hundred so-called Pure Oil of Wintergreen is made from natural sources, and the Salicylic Acid and Sodium Salicylate offered at cheap prices will no doubt be found to be made from spurious oil. While it may be true that cheaper Salicylic Acid and its Sodium Salt may be made from Oil of Wintergreen as the label asserts, the fact remains that the oil from which it is produced was spurious and the resultant product cannot prove satisfactory in your practice.

It has been well established that the synthetic product is dangerous and should never be used for internal administration; that being contam-

inated with the poisonous ortho—and para-cresotic acids, it is irritant to the digestive organs, depressing to the heart, and liable to cause congestion of the kidneys. None of these objections apply to the True Acid from Natural Oil of Wintergreen, which may be administered in rational doses for a considerable length of time without causing any untoward results. See that you get William S. Merrell Chemical Company's product *It is reliable.*

THE VALUE OF PETROLEUM.—The medicinal value of Petroleum has been known so long that the date of its first use is lost in the mists of antiquity. In the form of kerosene, petroleum is used a great deal, particularly by people in the lower walks of life, as a cure for croup and whooping-cough. Of course, a crude oil such as kerosene should never be taken internally for the reason that it is tonic, and, what is more, likely to contain active poisons. Thoroughly purified petroleum is, however, a most valuable medicine, and is found in its highest development in Terraline, which contains in the highest degree of purity all the physiological properties of petroleum. The petroleum itself is carefully selected from the best wells, and every step of the preparation of this medicine is attended with the most scrupulous precaution. As a result we have a petroleum preparation which is absolutely pure, tasteless and odorless. It is of high merit as a stimulator of the processes of nutrition, and is indicated in all diseases involving the throat and lungs.

NEURILLA FOR CONVALESCENTS.—With fever patients in convalescent state, after the fever had partially abated, I have used Neurilla and am able to observe that the nervousness which is usually attendant at this time in fever patients is lessened to a marked degree. I would feel safe to prescribe it for all neurotic subjects. C. C. CLEAVELAND, M.D.
1215 W. 33rd St., Minneapolis, Minn.

NOTWITHSTANDING the large number of HYPOPHOSPHITES on the market, it is quite difficult to obtain a uniform and reliable Syrup. "ROBINSON'S" is a highly elegant preparation, and possesses an advantage over some others, in that it holds the various salts, including Iron, Quinine, and Strychnine, etc., in PERFECT SOLUTION, and is not liable to the formation of fungous growths.

SANDER & SONS' Eucalyptol (pure Volatile Eucalypti Extract.)—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis supplied sample and literature of Sander's Eucalyptol. It is invaluable in inflammations of the mucous membranes and in all septic and infectious diseases. Meyer Bros. Drug Company, St. Louis, Mo., sole agents.

TROPHONINE AN IDEAL NUTRITIVE IN PHTHISIS PULMONALIS.—I have treated a large number of consumptives and have tried all sorts of artificial foods as well as the usual natural ones, but have never found anything that gave such wonderful results as the way of nourishment and gain in weight as Trophonine.

Out of fifty-three cases that came under my care during the past year, nine were given Trophonine in conjunction with their normal diet and in every instance there was a gain in weight and improvement in the physical condition. Especially in cases where the throat is involved it is of value, when deglutition becomes almost impossible. Trophonine can be swallowed because it soothes inflamed parts as it passes over them. Trophonine can be given per rectum and is retained with ease on account of its non-irritating nature. From the results I obtained in these cases, I am convinced that Trophonine is the best adjunct to the patient's regular diet in Phthisis.—Abstract from the *American Therapist*, September, 1901, article by J. Leffingwell Hatch, S. Sc., M.D., F.R.M.S., (London.) Late Professor of Laryngology in the New York Clinical School of Medicine, and Laryngologist to the German West Side Dispensary.

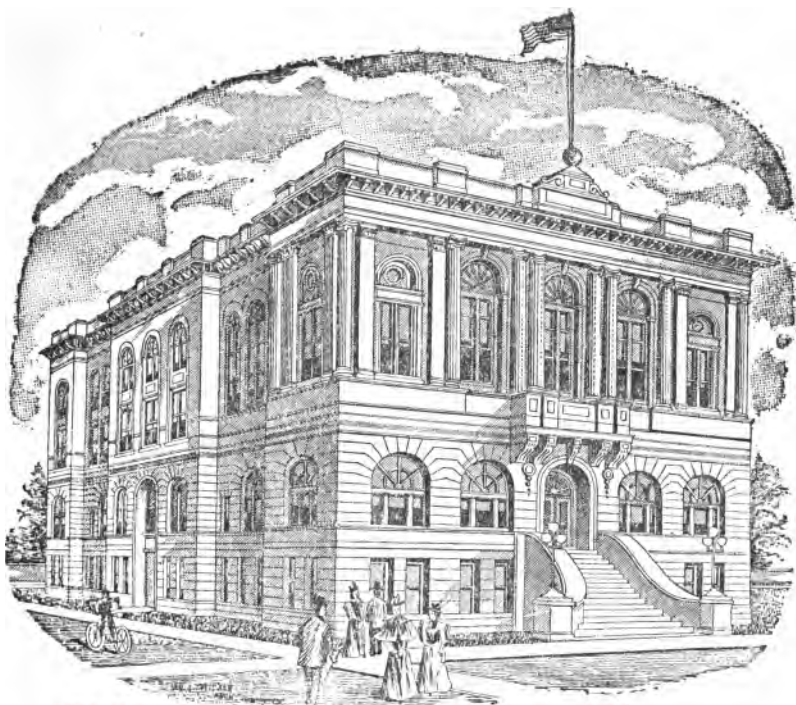
SANDER & SONS' Eucalyptol (pure Volatile Eucalypti Extract).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis supplied sample and literature of Sander's Eucalyptol. It is invaluable in inflammations of the mucous membranes and in all septic and infectious diseases. Meyer Bros. Drug Company, St. Louis, Mo., sole agents.

Reviews and Book Notices.

THE PRINCIPLES OF HYGIENE.—A Practical Manual for Students, Physicians, and Health Officers. By D. H. BERGEY, A.M., M.D., First Assistant, Laboratory of Hygiene. University of Pennsylvania. Octavo volume of 495 pages, illustrated. Philadelphia and London: W. B. SAUNDERS & Co., 1901. Cloth, \$3.00 net.

This book is intended to meet the needs of students of medicine and to aid physicians and health officers in familiarizing themselves with the advances made in hygiene and sanitation in recent years. The book is based on the most recent discoveries, and represents the practical advances made in the science of hygiene up-to-date.

Among the important subjects considered are Ventilation,



VANDERBILT UNIVERSITY,

MEDICAL DEPARTMENT.

SESSION OF 1901-1902.

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LUCIUS E. BURCH, M.D., Adjunct Pro-
fessor of Gynecology.

A. B. COOKE, M.D., Professor of Proctology.

There will be no preliminary session this year. The regular session opened October the 1st. All matriculants must have attended four full courses of graded instruction before applying for graduation. Certificates from other reputable colleges will be accepted, and advancement will be given accordingly. Students with diplomas from recognized literary institutions will be permitted to enter the second-year class.

Methods of instruction: Didactic, Clinical, by recitation and in laboratories.

The facilities for teaching are ample. In addition to the regular faculty there are numerous lecturers and assistants. For catalogue or special information address.

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Syrupus Roborans as a Tonic during Convalescence has no Equal.

As a nerve stimulant and restorative in wasting and debilitating diseases, as a constructive agent in Insomnia, Pneumonia, Tuberculosis, Bronchial Asthma, Marasmus, Strumous Diseases and General Debility this compound has no superior. Owing to the solubility of the salts, addition can be made of Fowler's Solution, Syr. Iod. Iron, Iod. Potass., Etc., giving the advantages of those remedies without interfering with the stability of the preparations. **SYRUPUS ROBORANS** is a perfect solution, and will keep in any climate.

Dr. W. O. Roberts says: "In cases convalescing from LaGrippe, Syrupus Roborans has no equal."

Dr. T. H. Stucky writes: "In a case of Tertiary Syphilis, very anemic, the iodides were revolting to the Stomach, being vomited when taken. Syrupus Roborans given three weeks with improvement, when the Iodide Potassium was retained with good results."

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A POWERFUL DIGESTIVE FLUID IN PALATABLE FORM.

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Gentlemen, The excellence of your preparation
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compound" cannot be questioned.
I use both in my practice and
have always been pleased with the
Effect of Each. Respectfully,
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ASS'N. and Miss. Valley Med. Ass'n; Ky. State Board of Health.

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Heating, Water and Water Supplies, Disposal of Sewage and Garbage, Food and Diet, Exercise, Clothing, Personal Hygiene, Industrial Hygiene, School Hygiene, Military and Naval Hygiene, Habitations, Vital Statistics, Disinfection, Quarantine, etc. The idea of the book is to give the reader a clear understanding of the general principles of this broad subject.

A MANUAL OF CLINICAL LABORATORY METHODS. By JOHN BENJAMIN NICHOLS, M.D., in charge of Clinical Laboratory, Garfield Hospital; Hematologist to Columbian University Hospital; Professor of Normal Histology in Medical Department of Columbian University, Washington, D. C. Illustrated. 8vo. Cloth, pp. 303. WILLIAM WOOD & Co., Publishers, New York, 1902.

This work presents in practical and systematic form the most important laboratory methods of use in clinical medicine. "Covering established methods," as stated in its modest preface, "it cannot profess to present much that is new or original, or to cover a field not already occupied, but must base its *raison d'être* on the collection of numerous technical procedures within small compass and on presentation of the subject in a manner convenient and clear to students and practitioners of human medicine, to whom it is hoped the work may prove of use."

Dr. Nichols dedicates his excellent literary production to his wife. The mechanical execution, in the usual style of Messrs. Wood & Co., leaving nothing to be desired. It is both useful and ornamental in high degree.

DA COSTA. CLINICAL HEMATOLOGY. A Practical Guide to the Examination of the Blood with reference to Diagnosis. By JOHN C. DA COSTA, JR., M.D., Assistant Demonstrator of Clinical Medicine, Jefferson Medical College; Hematologist to the German Hospital, etc. Containing 8 full-page colored plates, 3 charts and 48 other illustrations. Octavo, 450 pages. Published by P. BLAKISTON'S, Son & Co., 1012 Walnut Street, Philadelphia, 1901. Price, \$5.00 net.

Among the greatest advances in the important field of Diagnosis are to be found in a study of the blood—that important fluid having so intimate a relation with both structure and function of the body that Job has said of it in Holy Writ "that it is the life thereof." As the blood is to the body, so is Diagnosis to the practice of medicine.

In this most excellent work we have a practical guide to the

examination of the blood by methods adopted to routine clinical work, giving the salient facts of hematology as they are understood at the present time, connecting these facts with familiar pictures of disease, and applying them to medical and surgical diagnosis.

The technique of blood examinations, as laid down by the author, are neither elaborate nor difficult to master. With our present knowledge of the subject, clinical information of two different kinds may be derived from hematology: the findings pathognomonic of certain diseases; and auxiliary data which, with other clinical manifestations, will prove either essential or helpful in establishing the precise nature of a disease. We can and do most warmly commend this excellent book to both students and practitioners whose aim is success, it will prove a most invaluable aid.

AN AMERICAN TEXT-BOOK OF PATHOLOGY. Edited by LUDVIG HEKTOEN, M.D., Professor of Pathology, Rush Medical College, Chicago; and DAVID RIESMAN, M.D., Professor of Clinical Medicine, Philadelphia Polyclinic. Handsome imperial octavo of 1245 pages, 443 illustrations, 66 of them in colors. Philadelphia and London: W. B. SAUNDERS & Co., 1901. Cloth, \$7.50; Sheep or Half Morocco, \$8.50 net.

The importance of the part taken by the science of pathology in the recent wonderful advances in practical medicine is now generally recognized. It is universally conceded that he who would be a good diagnostician and therapist must understand disease—must know pathology. The present work is the most representative treatise of the subject that has appeared in English. It furnishes practitioners and students with a comprehensive text-book on the essential principles and facts in General Pathology and Pathologic Anatomy, with especial emphasis on the relations of the latter to practical medicine. Each section is treated by a specialist who is thoroughly familiar with his particular subject, and can best frame the theories and conclusions in an authoritative form. The illustrations, which are nearly all original, and of which 66 are in colors, are unsurpassed in beauty by those in any similar work in the English language. In fact, the pictorial feature of the work forms a complete atlas of pathologic anatomy and histology.

THE AMERICAN EDITION OF NOTHNAGEL'S ENCYCLOPEDIA. Variola, (including Vaccination). By DR. H. IMMERMAN, of Basle. Varicella. Br. DR. TH. VON JURGENSEN, of Tübingen. Cholera Asiatic and Cholera Nostras. By DR. C. LIEBERMEISTER, of Tübingen. Erysipelas and Erysipeloid. By DR. H. LENHARTZ, of Hamburg. Whooping Cough and Hay Fever, by DR. G. STICKER of Giessen. Edited, with additions, by SIR J. W. MOORE, B.A., M.D., F.R.C.P.I., Professor of the Practice of Medicine, Royal College of Surgeons, Ireland. Handsome octavo volume of 682 pages, illustrated. Philadelphia and London: W. B. SAUNDERS & Co., 1902. Cloth, \$5.00 net; Half Morocco, \$6.00 net.

The articles included in this volume treat of a number of diseases second to none in importance, whether regarded from the standpoint of Preventive Medicine or as the cause of widespread sickness and death. Although the excellence of the German work and the detailed and comprehensive manner in which the respective authors had dealt with their several subjects left comparatively little to be added, the editor has not hesitated to amend the text whenever necessary, and has also embodied the results of his personal experiences, gained during a varied practice extending over thirty-three years.

One of the most timely articles included in the work is that on Variola, including Vaccination and Variolation. Dr. Immerman's monographs on these subjects, now of vital interest, especially in the United States and Great Britain, have probably never been equaled for circumstance of detail and masterly argument.

The other articles, each by a German specialist of recognized authority, are also skillful expositions of particular diseases under discussion. The entire volume being edited by a specialist of acknowledged ability, the work, it will be seen, has been brought precisely down to date. It is, indeed, a magnificent contribution to the literature of medicine.

THE POCKET GRAY OR ANATOMIST'S VADE-MECUM. By the late EDWARD COTTERELL, F.R.C.S. Fifth edition, revised and enlarged by C. H. FAGGE, M.B., M.S. Lond., F.R.C.S., Senior Demonstrator of Anatomy, Guy's Hospital. Twentieth Thousand. New York. WILLIAM WOOD & COMPANY. 1901.

This, the fifth edition of this little pocket piece shows a very material improvement over its predecessors, in the correction of

errors and the amplification of descriptions to prevent mistakes, and in the addition of the action of each muscle to its description. A very excellent *multum in parvo*.

THE FOUR EPOCHS OF WOMAN'S LIFE. A Study in Hygiene. By ANNA M. GALBRAITH, M.D., Author of "Hygiene and Physical Culture for Women;" Fellow of the New York Academy of Medicine, etc. Ex-Pres't Alumnæ Ass'n Woman's Med. Col., Pa., etc. With an Introductory Note by JOHN H. MUSSER, M.D., Professor of Clinical Medicine, University of Pennsylvania. 12mo volume of 200 pages. Philadelphia and London. W. B. SAUNDERS & COMPANY, 1901. Cloth, \$1.25, net.

A book for women by a woman. This is pre-eminently the day of preventive medicine. The physician who can prevent the origin of disease is a greater benefactor than he who can lessen the mortality or suffering after the disease has occurred. Any contribution, therefore, to the physical, and hence the mental, perfection of woman should be welcomed alike by her own sex, by the thoughtful citizen, by the political economist, and by the hygienist.

In this instructive work are stated, in a modest, pleasing, and conclusive manner, those truths of which every woman should have a thorough knowledge. Written as it is for the laity, the subject is discussed in clear, comprehensible language, readily grasped even by those most unfamiliar with medical subjects. Without doubt, it is a book that should receive the thoughtful consideration of every woman.

THE MEDICINAL PLANTS OF THE PHILIPPINES. By T. H. PARDO DE TAVERA, Doctor en Medicina de la Facultad de Paris, Comisionado Cientifico de S. M. en las Islas Filipinas y Delegado General en las Mismas de la Societe Academique Indo-Chinoise de Francia, Miembro Fundado Correspondiente de la Sociedad Espanola Higiene, etc. Translated and revised by JEROME B. THOMAS, JR., A.B., M.D., Captain and Assistant Surgeon U. S. V. Published by P. BLAKISTON'S SON & Co., 1012 Walnut Street, Philadelphia, 1901. Price, \$2.00, net.

Now that the Philippines have come into our possession, and we hope to stay, the resources of the islands are of no little importance, and this little work, while the original work of Dr. Pardo de Tavera was brought to light some ten years ago, the excellent translation by Dr. Thomas, makes it to American readers something new and worthy of their consideration.

THE MEDICAL NEWS POCKET FORMULARY (4TH) EDITION. Containing 1700 prescriptions representing the latest and most approved method of administering remedial agents. By E. QUIN THORNTON, M.D., Demonstrator of Therapeutics, Pharmacy and Materia Medica in the Jefferson Medical College, Philadelphia. New (4th) edition, carefully revised to date of issue. In one wallet-shaped volume, strongly bound in leather, with pocket and pencil. LEA BROTHERS & Co., Philadelphia and New York, 1902. Price, \$1.50, net.

The demand for a fourth revision within four years testifies that this manual is a most helpful assistant to the busy physician.

The arrangement of the text is planned to conduce to the greatest convenience. Diseases are arranged alphabetically, and under each are given efficacious prescriptions for simple cases as well as for the various stages and complications. Indications as to the conditions under which each formula can be advantageously used are appended. All quantities are expressed in the ordinary and metric systems.

PROGRESSIVE MEDICINE, VOL. IV., 1901. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 400 pages, 13 illustrations. Per annum, in four cloth bound volumes, \$10.00. LEA BROTHERS & Co., Philadelphia and New York.

As usual with the volumes of this publication the contents for December are of such a varied and practical character as to appeal to all classes of medical men.

Under Diseases of the Digestive Tract and Allied Organs, Dr. Einhorn covers with great thoroughness the medical and surgical treatment of pathological conditions of the œsophagus, stomach, liver, pancreas and peritoneum. Dr. Belfield's section on Genito Urinary Diseases, Dr. Bloodgood's article on Anesthesia, both general and local, the various pathological conditions of the kidneys by Dr. John Rose Bradford, Dr. Brubaker's section on Physiology, the section on Hygiene by Dr. Baker, and the Practical Therapeutic Referendum by Dr. E. Quin Thornton, possess great general interest and value to all practicing physicians. All the recent therapeutic methods and remedies are presented and their merits and demerits impartially dis-

cussed. It constitutes a therapeutic manual of the most advanced methods of treatment.

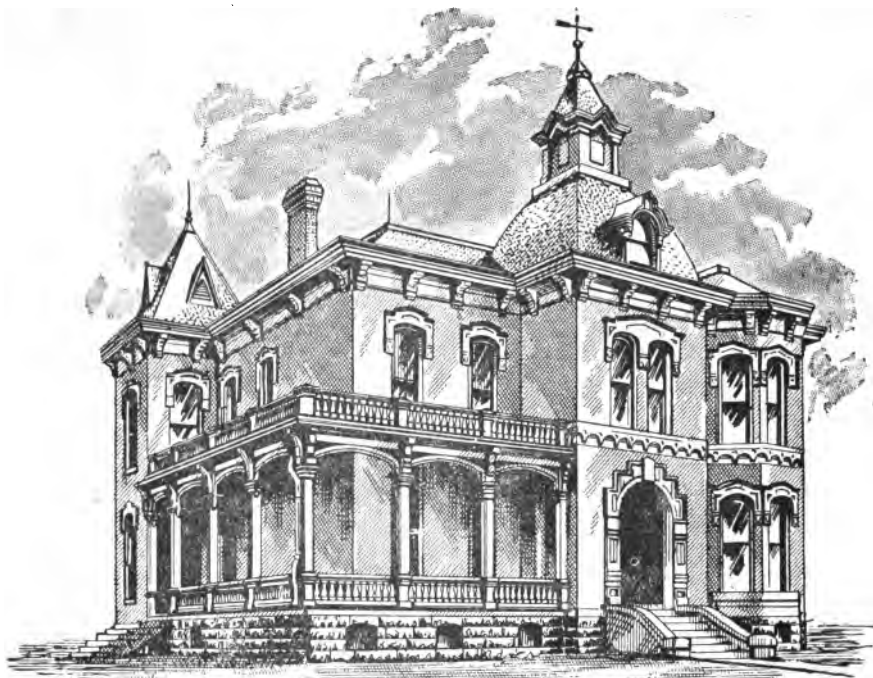
In each section every recent advance of value in relation to the diseases described is fully written of and from the most practical standpoint. The contributors are all authorities of the highest standing. The book is not a mere compilation of recent literature, but a series of critical reviews and original papers by masters of the subjects whereof they treat.

THE PRINCIPLES AND PRACTICE OF MEDICINE. Designed for the use of practitioners and students of medicine. By WILLIAM OSLER, M.D., Fellow of the Royal Society, Fellow of the Royal College of Physicians of London, Professor of Medicine in the Johns Hopkins University, and Physician-in-Chief to the Johns Hopkins Hospital, Baltimore, etc. Fourth edition, 8mo. cloth, pages 1,100. D. APPLETON & Co., publishers, New York, 1901.

Commendation of a work so well and widely known as "Osler's Practice," is unnecessary. Suffice it to say that many and important changes have been made in this edition. The article on Typhoid Fever has, in great part, been rewritten, and embodies the experience of the author's clinics. Malaria, dysentery, yellow fever, the plague, diphtheria, small-pox, cerebrospinal fever, rheumatic fever, and other acute affections have received proper attention at the hands of this able clinician and medical writer. Practically, it is an entirely new work, no part failing to receive proper attention, and many of the articles being practically new—the general arrangement of the subject-matter and the author's peculiar facile style of expression alone giving it a resemblance to its preceding editions. It is indeed a text-book and an authority.

LEA'S SERIES OF POCKET TEXT-BOOKS. HAYDEN ON VENEREAL DISEASES. A Pocket Text-book of Venereal Diseases. For Students and Practitioners. By JAMES R. HAYDEN, M.D., Chief of Clinic and Instructor in Venereal and Genito-Urinary Diseases in the College of Physicians and Surgeons, New York, etc. New (3d) Edition, thoroughly revised. In one handsome 12mo. volume of 304 pages with 66 engravings. Cloth, \$1.75 net. Flexible leather, \$2.25 net. LEA BROTHERS & Co., Publishers, Philadelphia and New York.

Dr. Hayden's excellent little work has promptly come to its



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contains besides the nutritive elements of beef, gluten of wheat and nucleo-albumins, the enzymes of the digestive glands.

As it does not irritate the stomach and leaves no residue to enter the intestinal tract, it is indicated in all those conditions where artificial feeding is necessary and is especially useful in Typhoid Fever, Vomiting of Pregnancy and Diseases of the Digestive System.

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Should always be applied warm and thick and directly to the skin. It works through reflex action and through dialysis, the latter scientifically including the processes of ex- and endosmosis. It flushes and depletes the capillaries, relieves congestion and pain when the muscular and nervous systems become relaxed and a peaceful sleep usually follows, which often marks the beginning of convalescence.

ANTIPHLOGISTINE is the most effective and deservedly the most popular treatment for

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Pneumonia	Sprains	Bronchitis	Synovitis
Pleurisy	Bruises	Erysipelas	Felons

And for all cases where inflammation or Congestion is present and a local medicine is indicated.

That physicians may know that the medicine has not been exposed and made less capable by absorbing moisture from the atmosphere, they are requested to prescribe in each instance a full box—Small (10½ oz.) 50 cts.; Medium (17½ oz.) 75 cts.; Large (35½ oz.) \$1.25, hospital size, \$2.50, each of which is sealed yet easily opened.

Send 25 cents to pay carriage on a free sample pound.

THE DENVER CHEMICAL MFG. CO.,

(INCORPORATED 1898)

(Home Office, DENVER.)

451-553 WASHINGTON ST., NEW YORK.

third edition and he has well utilized the opportunity thus offered to revise it thoroughly.

New sections on Vegetations and Herpes Progenitalis have been added and also a number of new illustrations. The object of the book is to furnish in clear compact form a practical working knowledge of Gonorrhœa, Stricture, Chancroid, and Syphilis together with their complications and sequelæ.

The volume is practical, concise, definite, and satisfactorily full. In matters of diagnosis and treatment it is particularly thorough, and while intended primarily for students it may be accepted by the practitioner as a convenient and trustworthy guide in the management of this class of cases.

AMERICAN EDITION OF NOTHNAGEL'S ENCYCLOPEDIA. Typhoid and Typhus Fevers. By DR. H. CURSCHMANN, of Leipzig. Edited, with additions, by WILLIAM OSLER, M.D., Professor of the Principles and Practice of Medicine, Johns Hopkins University. Handsome octavo of 646 pages, illustrated, including a number of valuable temperature charts and and two full-page colored plates. Philadelphia and London: W. B. SAUNDERS & Co., 1901. Cloth, \$5.00 net; Sheep or Half Morocco, \$6.00 net.

The original German edition of this volume is universally recognized as the standard authority on the subjects of which it treats. The American edition, however, even surpasses the German, for, besides containing all the material of the original, extensive additions have been made to almost every chapter, incorporating the very latest views on the subjects.

The chapter on Bacteriology has been thoroughly revised and much new material added, giving prominent consideration to the distribution of the typhoid bacilli, especially in the urine, the rose-spots, and the blood.

To the chapter on Pathology many minor additions have been made, incorporating the important work of Mallory. The literature on the localized lesions due to the bacillus has been carefully reviewed and made to conform to the most recent advances in that part of the subject. Thayer's exhaustive study of the state of the blood has been utilized, and the Surgical Aspects of Typhoid Fever have been fully revised with the aid of Keen's monograph.

Much valuable material has been added to the chapter on

Diagnosis by Bacteriologic Methods, particularly with reference to the recent work in blood-cultures and on the detection of bacilli in the urine.

The chapter on Perforation and Peritonitis have been practically rewritten, as has also the section on the Hepatic Complications of Typhoid.

The American edition of this valuable work, while still possessing all the commendable qualities of the original German, is greatly enhanced in its field of usefulness by being brought strictly abreast of the latest literature on the subjects, and by representative specialists.

SAUNDERS' QUESTION COMPENDS. ESSENTIALS OF PHYSIOLOGY. Prepared especially for Students of Medicine; and arranged with questions following each chapter. By SIDNEY P. BUDGETT, M.D., Professor of Physiology, Medical Department of Washington University, St. Louis. 16mo volume of 233 pages, finely illustrated with many full-page half-tones. Philadelphia and London: W. B. SAUNDERS & Co., 1901. Cloth, \$1.00 net.

This is an entirely new work and a worthy accession to Saunders' excellent series of Question Compendes. It aims to furnish material with which students may lay a broad foundation for later amplification, and to serve as an aid to an intelligent consultation of the more elaborate text-book. The subject of Physiology is covered completely, and, the author of the work being a teacher of wide experience, the salient points are particularly emphasized. An important feature is the series of well-selected questions following each chapter, summarizing what had previously been read, and at the same time serving to fix the essential facts in the mind. Nearly all the illustrations are full-page half-tones, and have been selected with especial thought of the student's needs. In every way the work is all that could be desired as a student's aid.

SANDER & SONS' Eucalyptol (pure Volatile Eucalypti Extract).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis supplied sample and literature of Sander's Eucalyptol. It is invaluable in inflammations of the mucous membranes and in all septic and infectious diseases. Meyer Bros. Drug Co., St. Louis, Mo., sole agents.

Records, Recollections and Reminiscences.

SPECIAL NOTICE.

The Association of Medical Officers of the Army and Navy of the Confederacy will meet in the Judicial Room of the City Hall in Dallas, Texas, Corner of Akard and Commerce Streets, on Tuesday, April 22nd, 1902, at 12 m.

DEERING J. ROBERTS, M.D.,
D. D. SAUNDERS, M.D., Secretary.
President.

We are gratified to state that everything possible for the pleasure, enjoyment and happiness of the survivors of the Confederate States Army and Navy, is being done by the Committee of Arrangements and the good people of Texas, we say the good people of Texas advisedly, for every man, woman and child in the Great Empire State of the West feel the greatest interest possible in the coming reunion of the old Confederates, and this will necessarily include the Medical and Surgical Staff and their Associates.

A general invitation has been extended to every one who wore the 'gray' in the early part of the Sixties, and their wives and children, and grand children, to come and partake of the unbounded hospitality of TEXAS. As this includes all who are eligible to membership in the Association of Medical Officers of the Army and Navy of the Confederacy, we sincerely hope that everyone who can, by any possibility do so, will be there. The railroads have made a rate of *one cent a mile* going and coming, the citizens of Dallas and vicinity, and this includes the *Entire Domain of the Empire State of Texas*, will keep open

house during the reunion. Arrangements will be made for as many as so desire, to camp out, in good weather-proof tents, well arranged, supplied with cots, and ample water facilities, so that they can again have a positive realization of the stirring days of long ago; arrangements being made for feeding all who may desire a brief experience of camp-life once again; and for such as do not so wish, or from personal reasons prefer a more substantial roof-tree, ample provision will be made.

The following letter from the Secretary of the Dallas Reunion Organization enunciates in plain and unmistakable terms that all that part of "the world and its wife" who were identified with the Confederacy, will be amply provided for in any style they may select:

TEXAS REUNION ASSOCIATION,
247 Main St., DALLAS, TEX., Feb. 21st, 1902.
DEERING J. ROBERTS, M.D., Nashville, Tenn.

My Dear Sir: In answer to your queries will say: 1. All Confederates who will go into camp will be lodged and fed free. Fed on the best Texas barbecued buffalo for dinner the last day. This is for all, rich or poor, if they go into camp.

2. Hotel rates at first-class hotels at \$2.00 to \$5.00 per day. Cheaper rates at smaller hotels and boarding houses, say \$1.00 to \$2.50 per day. As many in a room as possible as was the case at all reunions. If a man wants a whole room it will cost more than figures above given. This includes board.

In private houses rates are cheaper.

If you want rooms write John F. Worley, Chairman Information Committee, 374 Commerce St., Dallas, Texas.

Yours truly,

C. L. MARTIN, Secretary.

So get ready, boys, for we will all be "boys" again, even for a brief period, and the meeting of those who have not seen each other for years, and alas! may never have that opportunity again, is something to be looked forward too with the very greatest anticipations of the highest degree of pleasure. Yes, get ready, put your business in order, pack your grip, hunt up that old suit of gray, or the "biled shirt," or that spick, and span *new suit*, more gorgeous than any those memorable days ever saw, and be READY for the greatest reunion of them all.



A. J. FOARD, M.D.,
MEDICAL DIRECTOR OF THE ARMY OF TENNESSEE.

By the way, we have it on good and reliable authority, from no less a one than a good and genial-hearted son of Bedford County, Tenn., who was a member of Starnes' Cavalry, that those "Buffalo" mentioned by Secretary Martin, are ripe and ready, six of them weighing 14,000 lbs. Just think of that, as you are survivors of the greatest war that civilization has ever witnessed, you will have one more chance of seeing native Americans eating meat that will soon be as extinct as that of a Mastodon!

The general Reunion of the U. C. V., will be held at the State Fair Grounds, where ample facilities will be found, but the Association of Medical Officers will hold their meetings in the City Hall; however, there will be ample facilities of going from one place to the other at any hour of the day or night, by means of several lines of electric cars.

In conclusion, we will say, that during this month a Special Circular will be sent out to every one whose post-office address it has been possible to secure, who is eligible to Membership, Associate, or Junior Membership in our Association. If it should not reach you or any of your neighbors who are eligible to membership in the Association, please let me know by postal card or otherwise, and very greatly oblige.

Yours very truly and sincerely,
DEERING J. ROBERTS, M.D., Secretary,
208 N. High St., Nashville, Tenn.

ANNUAL MEETING OF THE ASSOCIATION OF MEDICAL OFFICERS OF THE ARMY AND NAVY OF THE CONFEDERACY.

The annual meeting of this Association will be held in Dallas, Texas, April 22nd to 25th inclusive, in connection with the Annual Meeting of the United Confederate Veterans.

The Committee of Arrangements have sent out the following circular letter :

DALLAS, Feb. 1st, 1902.

Dear Doctor :

The Association of Medical Officers of the Army and Navy

of the Confederacy, will convene in Dallas, Texas, April 22nd to 25th inclusive during the meeting of the Confederate Reunion. All Surgeons, Assistant Surgeons, Acting Assistant Surgeons, or Contract Physicians and Hospital Stewards, in the Army and Navy of the Confederate States, and all regular physicians who served honorably in any capacity in the Confederate States Army and Navy, and all regular physicians who are sons of Confederate Veterans are eligible to membership.

You are cordially invited to attend said meeting and contribute reports of important cases coming under your observation, and any reminiscences worthy of preservation connected with your service in the Army and Navy of the Confederacy.

If you desire to become a member of the Association and expect to attend the meeting next April, please write to the Secretary, Dr. Blount, at once, giving time and place of enlistment, rank at time of enlistment, rank at close of war, character of service—Army or Navy; when and where surrendered, present address and remarks.

Any further information desired will be cheerfully furnished by Dr. E. A. Blount, Dallas, Tex., or Dr. Deering J. Roberts, Secretary of the Association at Nashville, Tenn.

Respectfully,

HENRY A. MOSELY, M.D.,

Chairman Committee of Arrangements.

E. A. BLOUNT, M.D., Secretary.

SOME FACTS OF THE HISTORY OF THE ORGANIZATION OF THE MEDICAL SERVICE OF THE CONFEDERATE ARMIES AND HOSPITALS.

BY S. H. STOUT, A.M., M.D., LL.D.,

Ex-Surgeon and Medical Director of the Hospitals of the Confederate Armies and Department of Tennessee.

(*Continued from February Number.*)

X.

My immediate superiors in the medical service during the Confederate war, viz: B. W. Avent, Surgeon General of the

Provisional Army of Tennessee; D. W. Yandell, Medical Director of the Department of the West, on the staff of Gen. A. S. Johnston; A. J. Foard, Medical Director of the Army and Department of Tennessee, on the staff of Gen. Braxton Bragg, Joseph E. Johnston and J. B. Hood; and E. A. Flewellen for a few months on Gen. Bragg's staff, having been put upon record, readers are now prepared to understand the narratives which follow. Though much I will record are my personal acts, etc., in making this record and publishing it to the world, I want to give due credit to my superiors and subordinates in the service and to testify to their merits as officers, with whom it was always a pleasure on my part to co-operate. The frankness of my superiors in official intercourse with me while I was under their direction was uniform, and it was with zeal I ever strove to carry out their directions and wishes. Without their selection, aid, and approval, I would not have had thrust upon me the heavy responsibilities I had to shoulder; nor could I have won the approval of my commanding Generals and the Medical Bureau of the War Department of the Confederacy.

I never sought a position on any General's staff, nor asked for a change of position or place in the service.

The fathers and mothers of the members of Brown's Third Tennessee Regiment, suggested and urged my appointment as surgeon of that regiment; and every change of place or kind of service required of me was made without my solicitation.

In October, 1861, after general hospitals had been opened in Nashville, the policy of transporting all the sick and wounded thither was adopted. There was then little use for regimental hospitals, such as I had organized at Camps Cheatham and Trousdale, and at Bowling Green.

This consideration induced me cheerfully to accept Medical Director Yandell's proposition to transfer me from field to hospital service.

I was assigned to duty in charge of the Gordon Hospital, so named because the building was the Gordon warehouse.

This house occupied all of the lot upon which it stood. There were no openings either in the rear or in its ends. It fronted on the wharf and was a short distance from the corner of Front and Broad streets. Its front windows and doors and one sky light were the only ventilating openings.

When I entered the hospital to take charge of it, I found no organization, no register, and no books of any kind required by the regulations. But I found there, lying upon the bunks and floors six hundred and fifty patients, most of them suffering from measles or the sequela thereof, many of them seriously.

The hospital seemed to be in charge of a committee of ladies of the Nashville Hospital Association, of which Mrs. Felicia Grundy Porter was the President. Kind, benevolent and self-sacrificing ladies! How they were over-taxed, over-worked! Unacquainted with the workings of the rules necessary to be observed in the management of a military hospital, it was not astonishing to me that they at first were disposed to resist my efforts to remedy the prevalent confusion and to demonstrate the value of system and military discipline.

The patients were being treated by civilian physicians called in by the ladies' committee. I found a number of them with prescription papers in hand busy writing their prescriptions, which were taken by the ladies to local pharmacists to be filled.

As before said there was no register, and no record made of the diagnosis of the cases, no record of prescriptions written, and no diet table.

My first efforts were to secure a register of each inmate and a diagnosis of each case. Much to my surprise, and yet with no evil intention on their part, I found my efforts antagonized by some members of the Ladies' Hospital Society. Having preceded me in charge of the hospital, they were somewhat disposed to be resentful of my authority. They based their right of control on a letter of the Surgeon General to their President, giving them full access to the Confederate hospitals and commending them to the courtesy of the medical officers in charge.

Prior to my advent, they had fed the inmates, had hired cooks and laundresses, who, not being under military rules, were in general lazy, many of them dishonest. These hirelings resented my authority, and finding that under official control their positions were not sinecures, some of them resigned, in not a few instances they took with them property not belonging to them.

But a short time after I had reduced the confusion into an approximation to order, the building became uninhabitable even for robust men in sound health. There was no other means of

disposing of human excrement save through patent water closets situated on each floor. In spite of all the vigilance possible, soldiers ignorant of the construction of these closets and their mode of drainage soon filled the drain pipes with cloth, paper and sticks. An overflow of the pipes occurred. Soon underneath and upon the floors there accumulated fecal matter that caused the air of the whole building to be pervaded with mephitic gases, so intolerable as sometimes to overpower healthy men. Before the nuisance became so intolerable, requisitions upon the quartermaster were made again and again to repair those water closets, without success. It therefore became necessary to remove all the patients. Between two and three weeks were occupied in making the necessary repairs. This interval gave me time and opportunity to thoroughly disinfect the building and organize, according to the regulations, the working force of the hospital, medical officers, stewards, detailed men and hirelings and to explain to them their duties.

After the hospital was reopened, the ladies of the hospital Society resumed their self-assigned tasks. There was nothing for them to do save to prepare special diet for the very sick, whom they were told would be pointed out to them by the medical officers and hospital steward, the prescription book being referred to as their guide. Every person connected with the hospital was informed that he or she must submit cheerfully to orders given, and that each must remember that he or she was subject to punishment if disobedient. No hireling was employed who did not make a pledge to be subservient to military rule. No nurse was permitted to feed patients otherwise than as directed by the medical officers treating them. This left the ladies' committee with little to do. Though upon the reopening of the hospital they found it in good order, not over-crowded, and clean; some of them seemed disgruntled that there was so little for them to do, and all of their supposed authority over the management of the hospital had passed out of their hands. Still somewhat rebellious, finding that the subordinates, nurses, etc., were afraid to disobey orders even at their request, unknown to me they employed with the funds of the society a subservient Irishman, whom they claimed the exclusive right to order. Detected in feeding certain patients contrary to the prescriptions of the medi-

cal officers, I took him aside and told him that if he persisted in staying about the hospital, and was found disobeying orders even though acting under the direction of the ladies, I would send him to the guard house. He dared not afterwards to feed patients except as directed by the medical officers. The ladies after consultation, delegated one of their number to wait upon me and find out what I meant by thus thwarting them in their benevolent, self-assigned work. She was a venerable and highly estimable lady. She had known me from infancy, and I always regarded her as a friend. She began by telling me that she felt much interest in my success; for she had known me all my life and was a warm friend of my mother. She said the ladies were pleased with the improved condition of the hospital, and wanted to help me, but feared I did not want their help. I replied: "In this you are mistaken, I do want their help. But as a commissioned officer of the Confederate Army, I was bound in honor to observe and carry out the spirit of the regulations; that those regulations were enacted in the interest and for the proper care of the sick and wounded, and incidental thereto to preserve the discipline of the army. Every man in charge of the medical officers must be cared for, humanely treated and accounted for. Therefore, the assumption of authority to control the sick and wounded men of the army by outsiders, if not prevented or resisted by a surgeon or assistant surgeon in charge of them would subject him to trial by a court martial for failure to do his duty."

"But," said she, "I am afraid (I assure you I want you to succeed), that the ladies through their President, by appeal to the Surgeon General and Medical Director Yandell, may have you broken of your office, for you have incurred the disapproval of many of them."

In reply to this I said: "It is not in the province of the Surgeon General or Medical Director Yandell even if instigated to do so by all the good ladies of the land, unless it can be proven that I have been guilty of malfeasance or misfeasance in office; such arbitrary proceedings would rather cost the official heads of either or both these officials, and not my own."

I told her that "I sincerely desired the aid and co-operation of the good ladies of the Society, but their opposition I would not brook."

This frank conversation brought about a mutual understanding between the ladies and myself. Thenceforward, as long as I was on duty in Nashville their unselfish labors were a constant source of gratification to me, and grateful to the sick and wounded.

A. J. FOARD, M.D.,

MEDICAL DIRECTOR OF THE ARMY OF TENNESSEE.

After trying ineffectually for more than a year to secure a photograph of Dr. A. J. Foard, through the kindness of E. A. Flewellen, M.D., of Georgia, who succeeded Dr. Foard at one time, and is doubtless well remembered by some of our readers, we have been the recipient of a most excellent photograph, taken soon after the close of the war, and in the regulation uniform of a Surgeon and Medical Director. The reproduction we have great pleasure in presenting in this issue.

TWO TRAINS A DAY TO TEXAS.—You have two trains a day to Texas, on the COTTON BELT. One leaves Memphis 8.50 A.M., the other at 8.50 P.M. Trains from all principal points reach Memphis, morning and evening, in plenty of time to connect with these trains.

Cotton Belt trains carry Pullman Sleepers at night, Parlor Cafe Cars during the day, and Free Chair Cars both day and night.

W. G. ADAMS, Trav. Pass'r Agt., Nashville, Tenn.
E. W. LABEAUME, Gen. Pass. & Tkt. Agt., St. Louis, Mo.

GUAIACOL applied locally, one part to fifteen of vaseline or lanolin, will remove the pain of acute articular or muscular rheumatism.—*Med. Summary.*

"The best Antiseptic

is undoubtedly that which is the least harmful to man in the dose required for asepsis."—M. DUJARDIN BEAUMETZ.

LISTERINE

a safe, trustworthy, non-toxic antiseptic, answering every requirement of the physician and surgeon. In special practice, notably Laryngology and Rhinology, Listerine occupies an unrivaled position by reason of its excellence and wide range of utility.

An interesting little brochure, entitled:

"The TREATMENT of DISEASES of the RESPIRATORY SYSTEM"
will be mailed to your address, upon application.

Its exceedingly agreeable properties, and the readiness with which it disinfects offensive lochial discharges, has won for LISTERINE a first place in the lying-in room as a general cleansing, prophylactic or antiseptic agent. Whilst there is no possibility of poisonous effect through the absorption of LISTERINE, its power to neutralize the products of putrefactive changes, and thus to prevent absorption, has been most satisfactorily determined by extended clinical test.

. . . LISTERINE . . .

*promptly destroys all odors emanating from diseased gums and teeth.
It is a perfect tooth and mouth wash, indispensable for the dental toilet*

LAMBERT'S LITHIATED HYDRANGEA

A remedy of acknowledged value in the treatment of all diseases of the urinary system and of especial utility in the train of evil effects arising from a uric acid diathesis. Close clinical observation has caused LAMBERT'S LITHIATED HYDRANGEA to be regarded by physicians generally as a very valuable Kidney Alterative and antilithic agent in the treatment of

*Cystitis, Diabetes, Gout, Rheumatism, Hematuria, Bright's Disease,
Urinary Calculus, Albuminuria and vesical irritations generally.*

Realizing that in many of the diseases in which LAMBERT'S LITHIATED HYDRANGEA has been found to possess great therapeutic value it is of the highest importance that suitable diet be employed, we have prepared for the convenience of physicians

DIETETIC NOTES,

suggesting the articles of food to be allowed or prohibited in several of these diseases. A book of these Dietetic Notes, each note perforated and convenient for the physician to detach and distribute to patients, together with a pamphlet treating of "RENAL DERANGEMENTS" may be had by addressing:

LAMBERT PHARMACAL COMPANY. ST. LOUIS.

Prescriptions and Formulary.

DIABETES MELLITUS.—

R Sodii phosphatis ʒiij.

Sig. Tablespoonful in glass of hot water before breakfast.

Indication.—Used in cases with hepatic torpor.

R Ext. pancreati.... ʒj

Pone in cachetas No. xxiv. Sig. Three cachets two hours after meals.

Indication.—Used in disorder of pancreas.

R Liq. potassii arsenitis..... fl. ʒ j.

Sig. One drop in water after meals, and increase dose daily until mild physiological effect, then reduce dose.

Indications.—Used in anæmic and rheumatic cases.

R Lithii carbonatis..... ʒ iv.

Pone in cachetas No. xxiv. Sig. One cachet two hours after meals.

Indications.—Used in conjunction with the preceding prescription in rheumatic and gouty subjects.—*Exchange.*

TO STERILIZE AND ACIDIFY THE URINE —

R Acidi benzoici..... ʒ ij.

Acidi borici..... ʒ iij.

Aq. dest ʒ xij.

M. Sig. Tablespoonful well diluted three or more times daily.—*Leonard, Medical Record.*

CATARRHAL JAUNDICE.—The bitter tonics along with dilute hydrochloric acid are recommended as tonics, antifermentatives and hepatic stimulants. The following combination makes an effective mixture in such cases:

R Acidi nitro-hydrochlor..... ʒ iv.

Tinct. nucis vom ʒ iij.

GLYCO-HEROIN.

(SMITH)

Coughs, Bronchitis, Phthisis, Asthma, Laryngitis, Pneumonia and Whooping Cough.

Glyco-Heroin (Smith) has passed the scrutiny of both clinical and scientific investigation and its therapeutic value has been well defined and established by prominent men in the profession of medicine.

Each teaspoonful represents one-sixteenth grain Heroin
with

**A true exact solution of
Heroin in Glycerine.**

Ammonium Hypophosphite
Hyoscyamus
White Pine Bark.....
Balsam Tolu.....
Glycerine and Aromatics..

**Permanent and unalterable
through age.**

to enhance the palliative effect of Heroin and to embody decided
curative properties in this preparation.

Glyco-Heroin (Smith) places at the command of the physician and for his convenience a most superb and finished remedy to be accepted and used by him as an ethical preparation with physical characteristics and therapeutic properties far exceeding all other remedies of the Materia Medica and Pharmacopoea for the treatment of Coughs in all the various forms.

Adult dose—one teaspoonful.

The quantity ordinarily ordered by the physician is two, three or four ounces.

Physicians are requested
to write for samples.

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THROUGHOUT THE UNITED STATES.

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PRESCRIPTIONS AND FORMULARY.

Tinct. gentianæq. s. ad $\bar{3}$ iij.

M. Sig. One teaspoonful after meals t. i. d. in water.

The following is very often prescribed in cases of catarrh of the bile ducts:

R Sodii salicylatis..... $\bar{3}$ ij.

Ammonii chloridi $\bar{3}$ ss.

Aq. menth. pipq. s. ad $\bar{3}$ iij.

M. Sig. One dessertspoonful after each meal in water.

—*Journal American Medical Association.*

BROMIDROSIS PEDIS.—F. R. Millard (*Charlotte Med. Jour.*) has used yellow wash for the treatment of this affection for more than twenty years and thinks it will cure 90 per cent. of the cases. Its formula is:

R Corros. sublimate.....gr. xvj.

Limewater..... $\bar{3}$ iv.

M. Sig. Shake well before using.

At night, after bathing and drying the feet, apply the yellow wash with a soft rag and allow it to dry. Apply in the morning without bathing. Repeat daily until all odor is gone, and then use at night only for a week, after which use at night once or twice a week until all of the wash has been used. If these directions are strictly followed, a permanent cure can be expected in at least 90 per cent. of cases.—*Medical Standard.*

PNEUMONIA.—

R Ammoniaë muriatis..... $\bar{3}$ iij.

Antim. et pot. tartrat.....gr. ij.

Morphiaë sulphat.....gr. iij.

Syrupi glycyrrhizæ..... $\bar{3}$ iv.

M. Sig. A teaspoonful every two hours.—*Dr. N. S.*

Davis.

R Hydrarg. chlor. mitis.....

Ipecac. pulverisaa gr. vj.

Opii pulveris.....gr. iij.

Sacchar. alb.....gr. xxx.

M. Ft. chart. vj.

Sig.—One powder every four hours alternately with the

NEW AND EFFICACIOUS.
ERGOAPIOL
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**Amenorrhea, Dysmenorrhea, Fetid, Scanty
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 Oil Savin.....
 Aloin.....

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Put up in capsule form only, packed twenty in a box.

DOSE—One or two capsules, three or four times a day.

Physicians are kindly requested to always order original package when prescribing.

ERGOAPIOL—(SMITH) is lauded a superior preparation because of the Apiol mentioned; a truly active
 and perfect preparation of Apium Petroselinum, made by a new process, peculiarly
 our own—not the almost inert complex concentration known to you under this name; the excellent and original composition of the
 whole; the quality of each ingredient; the great care exercised in its manufacture, and most important

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NEURILLA is a reliable and harmless CALMATIVE.
INDISPENSABLE in the treatment of NERVOUSNESS.

Dose: teaspoonful every hour, or in bad cases every half hour until nervousness is abated,
 then, four times a day.—Teething Children:—5 to 20 drops as indicated.

Neurilla contains the essential active principles of scutellaria and aromatics.
 DAD CHEMICAL CO., New York and Paris.

PRESCRIPTIONS AND FORMULARY.

preceding prescription. At the same time cover the chest with emollient poultices.—*Dr. N. S. Davis.*

Where a typhoid condition of the system is associated with the pneumonia, bleeding is not well borne. In these cases *Dr. Davis* has obtained admirable results by the use of the preceding prescriptions.

At the end of twenty-four hours he omits the powders, and if the bowels have not been moved he gives a mild laxative. If the symptoms are not favorably modified in three or four days, a blister is placed on the side of the chest, most affected.

Should the pulse become soft and frequent, the breathing abdominal and the lips of a leaden hue,

R Quinæ sulph.....gr. ij.
Ammon. carbonatgr. iv.

M. Sig. Take at a dose. If delirium becomes troublesome add 10 minims of chloroform to the ammonia mixture. If there is indication of malarial influence, quinine may be given during the remissions.

SUB-ACUTE PLEURISY.—

R Potas. acet.....
Inf. digital.....aa ʒ ij iv.
Sig. This amount each day; or

R Pulv. digital.....
Pulv. scillæ mar.....
Hydrarg. chlo. mitaa gr. x.
M. Et. ft. pil. No. x.

Sig. One pill thrice daily.—*Dr. Alonzo Clark.*

The indications for treatment are to subdue the inflammation and promote absorption of the effused fluid. *Dr. Clark*, to accomplish the first of these effects, uses blisters, three being usually sufficient, selecting three spots and applying only one blister at a time, the second and third not being placed in position until the spot of former application has healed. As a diuretic he uses potassii iodidi xxx grs. a day; if this fail to diminish the fluid, he has resource to the above formulæ. If constitutional effects of mercury declare themselves he returns again to the potassii iodid. *Dr. Clark* uses other means, as

Glyco-Heroin-(Smith)

Compared with Codeine and Morphine



IN THE TREATMENT OF _____

COUGHS, BRONCHITIS, PHTHISIS,
ASTHMA, LARYNGITIS, PNEUMONIA
AND WHOOPING COUGH. . . .

ASIDE from the after-effects of Morphine such as nausea, general lassitude, vomiting and vertigo, it has the disadvantage that the patient becomes readily addicted to it and chronic morphinomania occurs, especially in neurotic persons.

Codeine in its physiologic action resembles narcotine, though the narcotic stage is not so much pronounced. When administered in small doses intestinal peristalsis is promoted, while in large doses it produces diarrhœa in consequence of complete relaxation of the intestinal muscles, owing to paralysis of the nerve centers governing the intestines.

The sedative action of Codeine is unreliable.

Expectoration is not promoted by Morphine or Codeine, while Glyco-Heroin-(Smith) acts as a stimulant to the respiratory center and stagnation of the secretions is excluded.

Ten times as much Heroin as Codeine is required to produce toxic effects.

Furthermore, ten times more by weight of Codeine than Heroin is required to produce the desired slowing of respiration

Comparative doses of Glyco-Heroin-(Smith) and Codeine show the latter to produce nausea, vomiting and vertigo, while these symptoms are absent during the administration of Glyco-Heroin-(Smith)

Unlike Morphine preparations Glyco-Heroin-(Smith) does not constipate.

Physicians are solicited to write for samples of Glyco-Heroin-(Smith) that they may investigate and observe the exceptional efficacy of this preparation. ❧ ❧ ❧ ❧ ❧

MARTIN H. SMITH CO.,
68 MURRAY STREET,
NEW YORK.

DOSE.—The adult dose of Glyco-Heroin-(Smith) is at all times *one teaspoonful*, which is repeated every two hours or at longer intervals as the case may require.

To children of ten or more years, give from a quarter to half a teaspoonful.

To children of three or more years, give five to ten drops.



NOTES.—Glyco-Heroin-(Smith) is a dark amber liquid, perfectly clear, and has the density of C. P. Glycerine. Its odor and flavor is peculiarly aromatic and agreeable. Its taste is aromatic sweet, with just a shade of bitter. The size of package supplied to the druggist for dispensing purposes is sixteen ounces. The quantity ordinarily prescribed by the physician is three or four ounces.

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FROM scientific investigations in Hospitals, Clinics and Sanitariums and the personal investigations by prominent physicians.

No other preparation has more successfully withstood such critical scrutiny.

No other preparation has had its therapeutic value more thoroughly defined or better established, than

GLYCO-HEROIN-(Smith)

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The Family Laxative.

The ideal safe family laxative, known as SYRUP OF FIGS is a product of the California Fig Syrup Co., and derives its laxative principles from senna, made pleasant to the taste and more acceptable to the stomach, by being combined with pleasant aromatic syrups and the juice of figs. It is recommended by many of the most eminent physicians, and used by millions of families with entire satisfaction. It has gained its great reputation with the medical profession by reason of the acknowledged skill and care exercised by the California Fig Syrup Co. in securing the laxative principles of the senna by an original method of its own, and presenting them in the best and most convenient form. The California Fig Syrup Co. has special facilities for commanding the choicest qualities of Alexandria senna, and its chemists devote their entire attention to the manufacture of the one product. The name—Syrup of Figs—means to the medical profession “the family laxative, manufactured by the California Fig Syrup Co.,” and the name of the Company is a guarantee of the excellence of its product. Informed of the above facts, the careful physician will know how to prevent the dispensing of worthless imitations when he recommends or prescribes the original and genuine—Syrup of Figs. It is well known to physicians that—Syrup of Figs—is a SIMPLE, SAFE and RELIABLE laxative, which does not irritate or debilitate the organs on which it acts, and, being pleasant to the taste, it is especially adapted to ladies and children, although generally applicable in all cases. Special investigation of the profession invited.

Syrup of Figs is never sold bulk. It retails at Fifty Cents per bottle and the name—SYRUP OF FIGS—as well as the name of the CALIFORNIA FIG SYRUP CO., is printed on the wrappers and labels of every bottle.

CALIFORNIA FIG SYRUP CO.,
SAN FRANCISCO, CAL.
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PRESCRIPTIONS AND FORMULARY.

purgatives, vapor baths, and mild counter-irritants when he thinks them indicated, but, having exhausted all medical means without effect (as is sometimes the case), he either resorts to the trocar or does nothing.

CHRONIC BRONCHITIS, EMPHYSEMA, SPASMODIC ASTHMA, HAY ASTHMA, AND PHTHISIS.—

R Potass. arsenit.....gr. xv.
Aquæ distillat℥ j

Take unsized white paper, thoroughly moisten it with this solution, dry and cut into twenty equal parts and roll each part into a cigarette. Two or three of these are to be smoked daily, inhaling the smoke.—*Trousseau*.

The above is also found very beneficial in acute and chronic coryza.

IN CHRONIC BRONCHITIS.—

R Ext. eucalypt℥ j.
Ammon. muriat.....℥ ij.
Ext. glycyrrhizæ.....℥ ij.
Syr. tolu℥ iij.

M. Sig. A tablespoonful four or six times a day.—*Bartholow*.

This forms an excellent expectorant in cases of chronic bronchitis and bronchorrhœa.

R Ammonii chloridi℥ if
Mist. glycyrrhizæ co℥ iij.

M. Sig. A dessertspoonful three times a day.—*Dr. Da Costa*.

This formula is adapted for those cases of bronchitis accompanied by chronic catarrh in old persons.

SMOKERS' GINGIVITIS.—

R Salol.....gr. xv.
Tinct. catechu.....℥ j.
Spir. menthæ pip.....℥ iv.

M. Sig. One teaspoonful in half a glass of water as a mouth wash.—*Indian Medical Journal*.



A SUCCEDANEUM FOR MORPHIA
Antikamnia
 OPPOSED TO PAIN.



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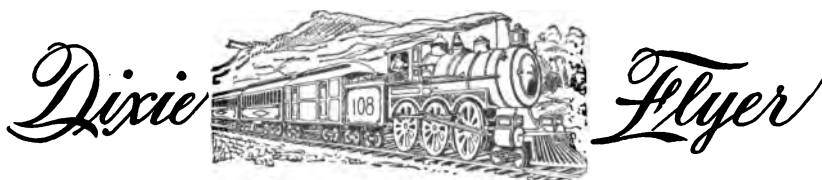
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ACUTE BRONCHITIS.—

R Vini ipecacuanhæ..... 3 ij.
 Liq. potassii citratis..... 3 iv.
 Tinct. opii camphoratæ.....
 Syrupi acaciæ..... aa 3 j.

M. Sig. A tablespoonful thrice daily in the first stage of ordinary acute bronchitis.—*Dr. Da Costa.*

This union of the sedative effects of opium with the excitatory action of the ipecacuanha on the congested mucous membrane has been found very serviceable,

FOR HEMORRHOIDS.—Some time ago a prescription came to us which has given fairly good results in our hands, and may be worth mentioning here as a remedy for the alleviation of piles. It is as follows:

R Ext. Hamamelis..... fl. 3 ij.
 Ext. Echinaceæ..... fl.
 Aqua Destill..... aa 3 j.

M. Sig. Inject two drachms after each stool, and also at bedtime, if needed.

The slight burning soon passes away and relief follows. Stronger solutions may be used, if deemed necessary.—*The Medicus.*

ANGINA PECTORIS.—H. A. Hare recommends in his *Practical Therapeutics* the following to be taken between attacks:

R Tinct. digitalis.
 Tinct. strophanthi aa m 48.
 Nitroglycerini (1 per cent.)..... m 24.
 Tinct. cardamomi q. s. ad fl. 3 3.

M. Sig. Teaspoonful three times a day.—*Therapeutic Monthly.*

REMOVAL OF CORNS.—

R Acidi salicylici.
 Acidi lactici..... aa 3 j.

A New Antiseptic Emulsion

FIROLYPTOL [TILDEN'S]

NOTHING SIMILAR OR EQUAL TO IT.

FORMULA :

Eucalyptol.....gtt. x.
 Ol. Gossypii Sem. Purificat. (pancreatized) 3ss
 Firwein (modified)qs. ad. 3j.
 Beechwood Creosote10 minims to f 3

This preparation is attracting a great deal of favorable comment among the members of the medical profession. It is easily assimilated, acceptable to the most delicate stomach, possesses all the advantages and none of the disadvantages of cod liver oil.

SAMPLES AND LITERATURE ON APPLICATION.

For Physician's Prescriptions only.

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WHEELER'S GLYCERITE OF TISSUE PHOSPHATES.

WHEELER'S COMPOUND ELIXIR OF PHOSPHATES AND CALISAYA.—A Nerve Food and Nutritive Tonic, for the Treatment of Consumption, Bronchitis, Scrofula and all forms of Nervous Debility.

This elegant preparation combines in an agreeable Aromatic Cordial, in the form of a glycerite acceptable to the most Irritable Conditions of the Stomach, Bone-Calcium Phosphate $\text{Ca}_3\text{2 PO}_4$, Sodium and Phosphate Na_2HPO_4 , Ferrous Phosphate, $\text{Fe}_3\text{2 PO}_4$, Trihydrogen Phosphate $\text{H}_3\text{ PO}_4$, and the Active Principles of Calisaya and Wild Cherry.

The special indication of this combination of phosphates in spinal affections, caries, necrosis, ununited fractures, marasmus, poorly developed children, retarded dentition, alcohol, opium, tobacco habits, gestation and lactation to promote development, etc., and as a *physiological restorative* in sexual debility, and all *used-up* conditions of the nervous system and should receive the careful attention of good therapeutists.

Notable Properties.—As reliable in dyspepsia as quinine in ague. Secures the largest percentage of benefits in consumption and other wasting diseases *by determining perfect digestion and assimilation of food.* When using cod-liver oil may be taken without repugnance. *It renders success possible in treating chronic diseases of women and children,* who take it with pleasure for prolonged periods, a factor essential to maintain the good will of the patient. Being a tissue constructive, it is the best *general utility* preparation for tonic restorative purposes we have, *no mischievous effects resulting when exhibited in any possible morbid conditions of the system.*

When strychnia is desirable, use the following:

R. Wheeler's Tissue Phosphates, one bottle; Liquor Strychnia, half fluid-drachm. M. In dyspepsia with constipation, all forms of nerve prostration; and a good *pick-me up* for daily use in constitutions of low vitality.

Dose.—For an adult, one tablespoonful three times a day; after eating; from seven to twelve years of age, one dessertspoonful; from two to seven, one teaspoonful. For infants, from five to twenty drops, according to age. Prepared at the chemical laboratory of T. B. WHEELER, M.D., MONTREAL, B. C.

To prevent substitution, it is put up in pound bottles only and sold by all druggists at \$1.

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During the seven years of its administration it has saved thousands of human lives.

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